Energy Laboratories Inc

ANALYTICAL RUN Summary

18-Oct-21

Run ID GCFID-HP4-B_211006C

Run Start Date: 10/6/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments:

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211006A	Triacontane SURR 2000 ug/mL					CAL-SURR	4/6/2026

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764037	CCV_1006HP43	HC-8015-DRO-	CAL1		10/7/2021 1:07:4	1	R368536		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.0019847		0.002	0	0	0	0.002	0	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764038	CCV_1006HP43	HC-8015-DRO-	CAL2		10/7/2021 1:53:0	1	R368536		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.04853713		0.05	0	0	0.002	0.002	0	97%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764039	CCV_1006HP43	HC-8015-DRO-	CAL3		10/7/2021 2:38:3	1	R368536		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.2121789		0.2	0	0	0.002	0.002	0	106%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764040	CCV_1006HP43	HC-8015-DRO-	CAL4		10/7/2021 3:23:5	1	R368536		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.4903055		0.5	0	0	0.002	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14764041	CCV_1006HP43	HC-8015-DRO-	CAL5		10/7/2021 4:09:3	1	R368536		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.9788904		1	0	0	0.002	0.002	0	98%	80	120	0%	

Write Sequence Data File	Insert Entries(Have the first cell for entries selected) Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
G:\org\HP4\DAT\HP4100621_b\1006HP4.28r	CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A	g:\org\HP4\Methods\CSC211006.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.29r	DCM-Baseline Check-V29	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.30r	CCV_1006HP407r, CAL1 ;1006HP4 , 2 ug per mL Triacontane (10 uL of Cal3 + 990 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.31r	CCV_1006HP408r, CAL2 ;1006HP4 , 50 ug per mL Triacontane (100 uL Cal4 + 900 uL of DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.32r	CCV_1006HP409r, CAL3 ;1006HP4 , 200 ug per mL Triacontane (100uL of Cal5 + 400 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.33r	CCV_1006HP404r, CAL4 ;1006HP4 , 500 ug per mL Triacontane (250uL of Cal5 + 250 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.34r	CCV_1006HP405r, CAL5 ;1006HP4 , 1000 ug per mL Triacontane (500 uL 2000 ug/mL Triacontane DRO211006A + 500 DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0

File Name: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
Version: 43

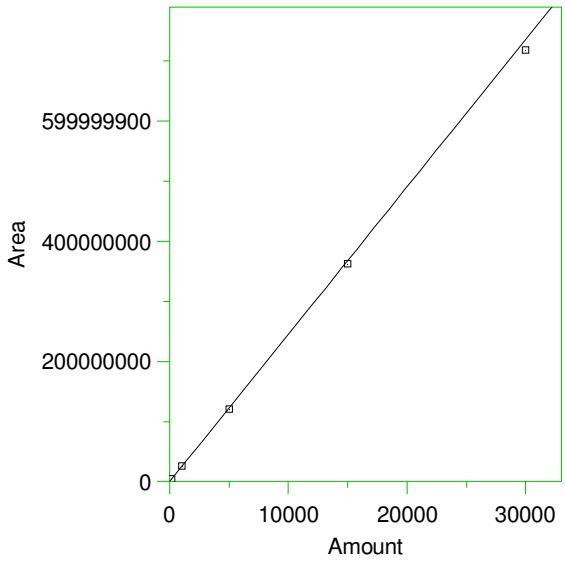
Creator: AMN
Description: 8015C-Oil Range w/Triacontane. New ICal Per 1006HP4 (2021)-2 uL Inj.;
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 500
Reference peak area reject threshold: 500
Amount units: nanograms
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 *30-40 Motor Oil



Expected retention time:	6.4 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

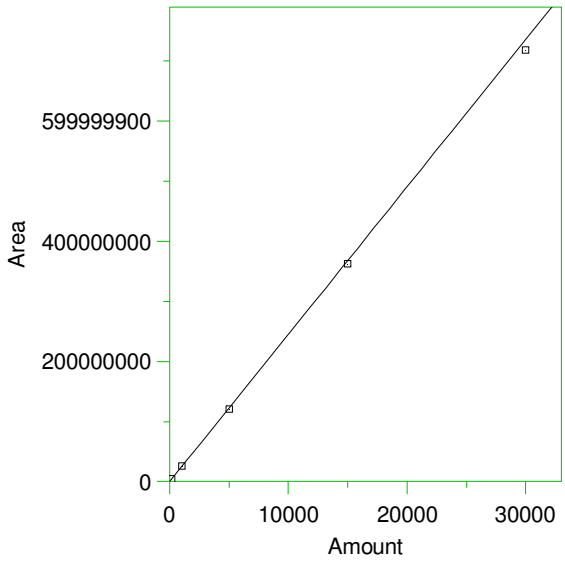
Y = 24529.56 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9990484
Average error:	1.972%
Average CF:	24529.56
RSD:	2.304%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	3765836	25105.57	2.348	Manual	1/1/2022 10:32:22 AM
2	1000	2.516261E+07	25162.61	2.581	Manual	10/7/2021 12:56:01 PM
3	5000	1.213971E+08	24279.42	-1.020	Manual	10/7/2021 12:55:18 PM
4	15000	3.623479E+08	24156.53	-1.521	Manual	10/7/2021 12:55:30 PM
5	30000	7.183105E+08	23943.68	-2.388	Manual	10/7/2021 12:55:47 PM

2 #C20



Expected retention time:	12.58 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

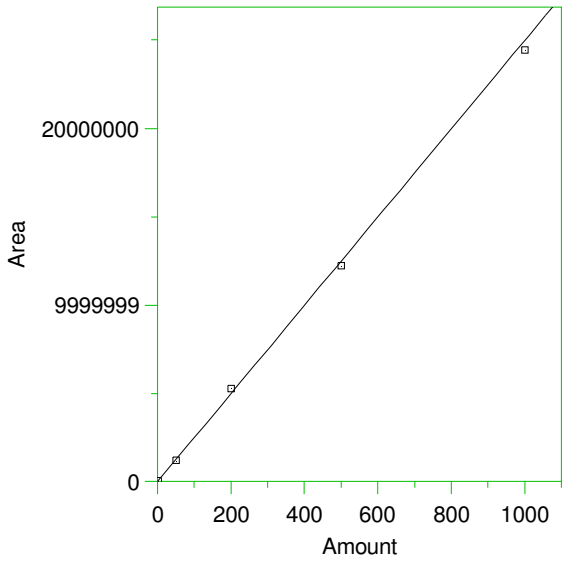
Y = 24529.56 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9990484
Average error:	1.972%
Average CF:	24529.56
RSD:	2.304%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	3765836	25105.57	2.348	Manual	1/1/2022 10:32:46 AM
2	1000	2.516261E+07	25162.61	2.581	Manual	1/1/2022 10:32:43 AM
3	5000	1.213971E+08	24279.42	-1.020	Manual	1/1/2022 10:32:41 AM
4	15000	3.623479E+08	24156.53	-1.521	Manual	1/1/2022 10:32:39 AM
5	30000	7.183105E+08	23943.68	-2.388	Manual	1/1/2022 10:32:36 AM

3 *#Triacontane



Expected retention time: 16.34 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 0

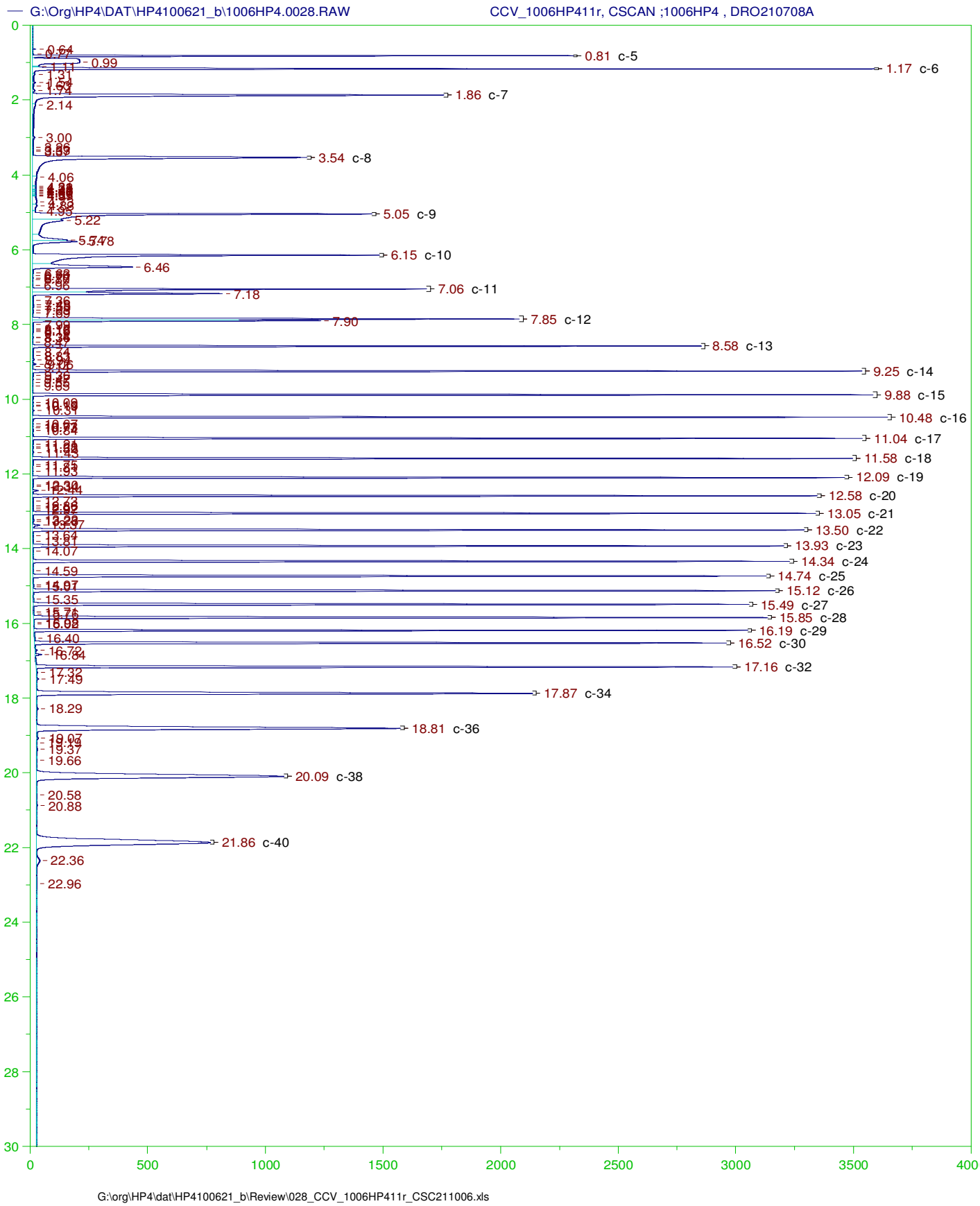
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

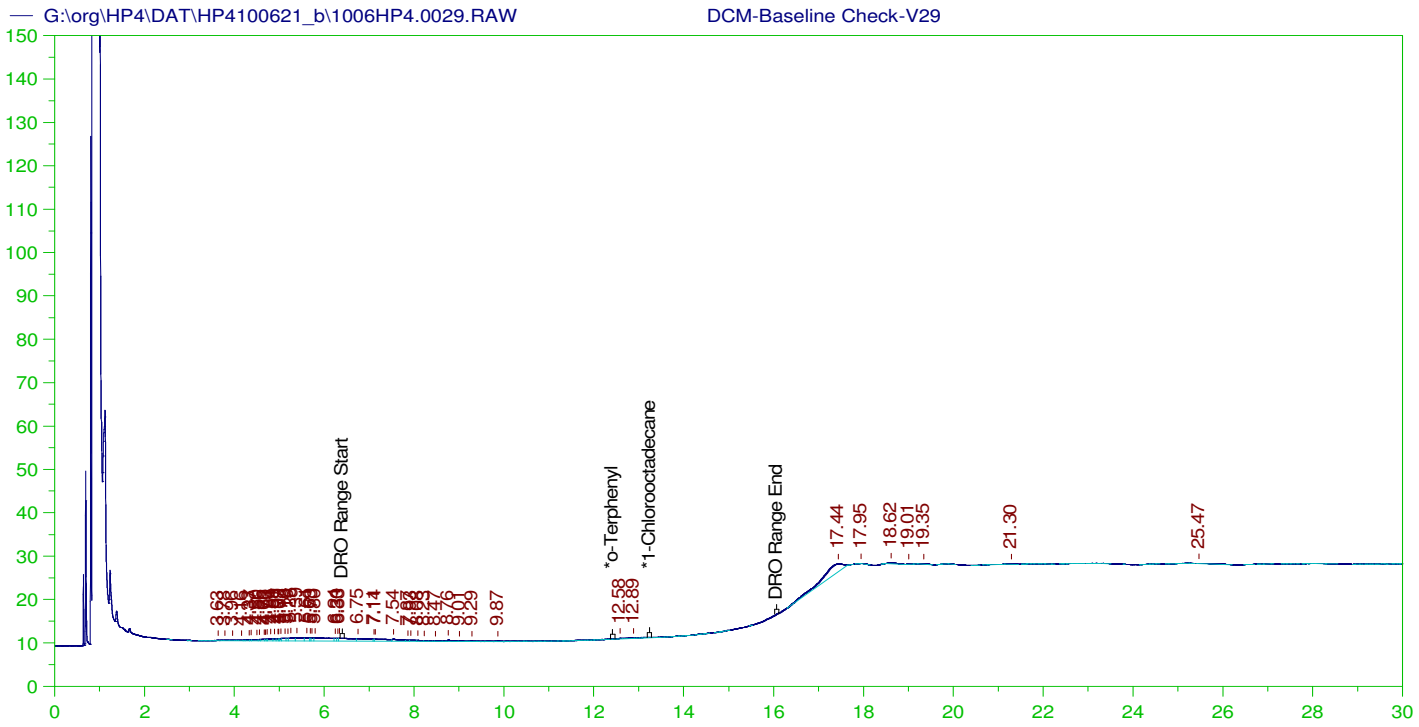
Single peak quantification by area

Y = 24973.81 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9989417
Average error: 2.783%
Average CF: 24973.81
RSD: 3.701%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	50369.5	25184.75	0.845	Manual	10/7/2021 1:17:20 PM
2	50	1212157	24243.14	-2.926	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0015.BND	10/7/2021 12:47:26 PM
3	200	5300126	26500.63	6.114	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0017.BND	10/7/2021 12:47:56 PM
4	500	1.22448E+07	24489.6	-1.939	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0019.BND	10/7/2021 12:48:04 PM
5	1000	2.445095E+07	24450.95	-2.094	Manual	10/7/2021 4:09:51 PM


G:\Org\HP4\DAT\HP4100621_b\1006HP4.0028.RAW
CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A
0.81 c-5
0.99
1.17 c-6
1.86 c-7
2.14
3.00
3.54 c-8
4.06
5.05 c-9
5.22
6.15 c-10
6.46
7.06 c-11
7.18
7.85 c-12
7.90
8.58 c-13
9.25 c-14
9.88 c-15
10.48 c-16
11.04 c-17
11.58 c-18
12.09 c-19
12.58 c-20
13.05 c-21
13.50 c-22
13.93 c-23
14.07
14.34 c-24
14.59
14.74 c-25
15.12 c-26
15.35
15.49 c-27
15.85 c-28
16.19 c-29
16.40
16.52 c-30
16.72
17.16 c-32
17.32
17.49
17.87 c-34
18.29
18.81 c-36
19.37
19.66
20.09 c-38
20.58
20.88
21.86 c-40
22.36
22.96
0
500
1000
1500
2000
2500
3000
3500
400
G:\org\HP4\dat\HP4100621_b\Review\028_CCV_1006HP411r_CSC211006.xls



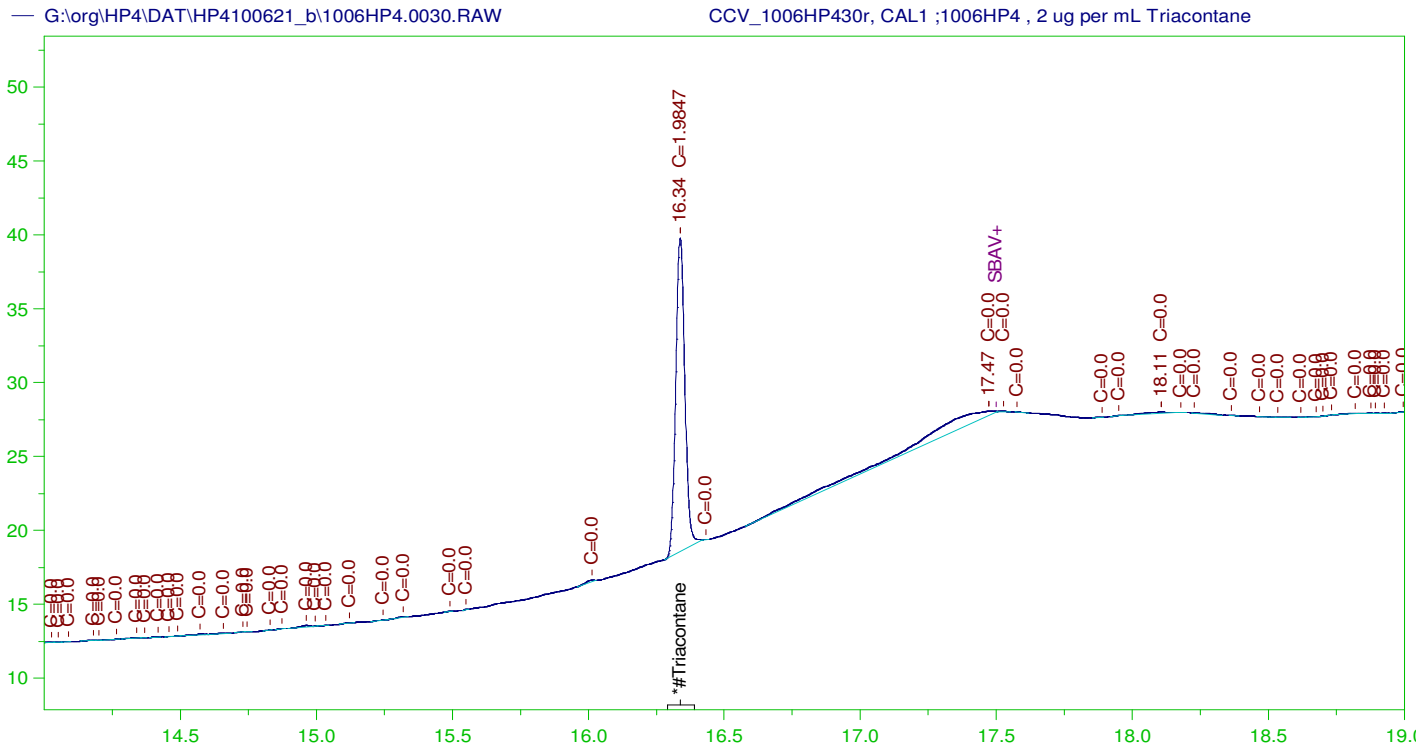
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V29
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0029.RAW
Date & Time Acquired: 10/7/2021 12:22:20 PM
Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.958	200.	.	.	-
*1-Chlorooctadecane	29.958	200.	.	.	-

DRO Area:46051.94 DRO Amount: 1.769218
TEH Area:213678.8 TEH Amount: 8.209086



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP430r, CAL1 ;1006HP4 , 2 ug per mL Triacontane
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0030.RAW
Date & Time Acquired: 10/7/2021 1:07:43 PM
Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.53 to 30.05

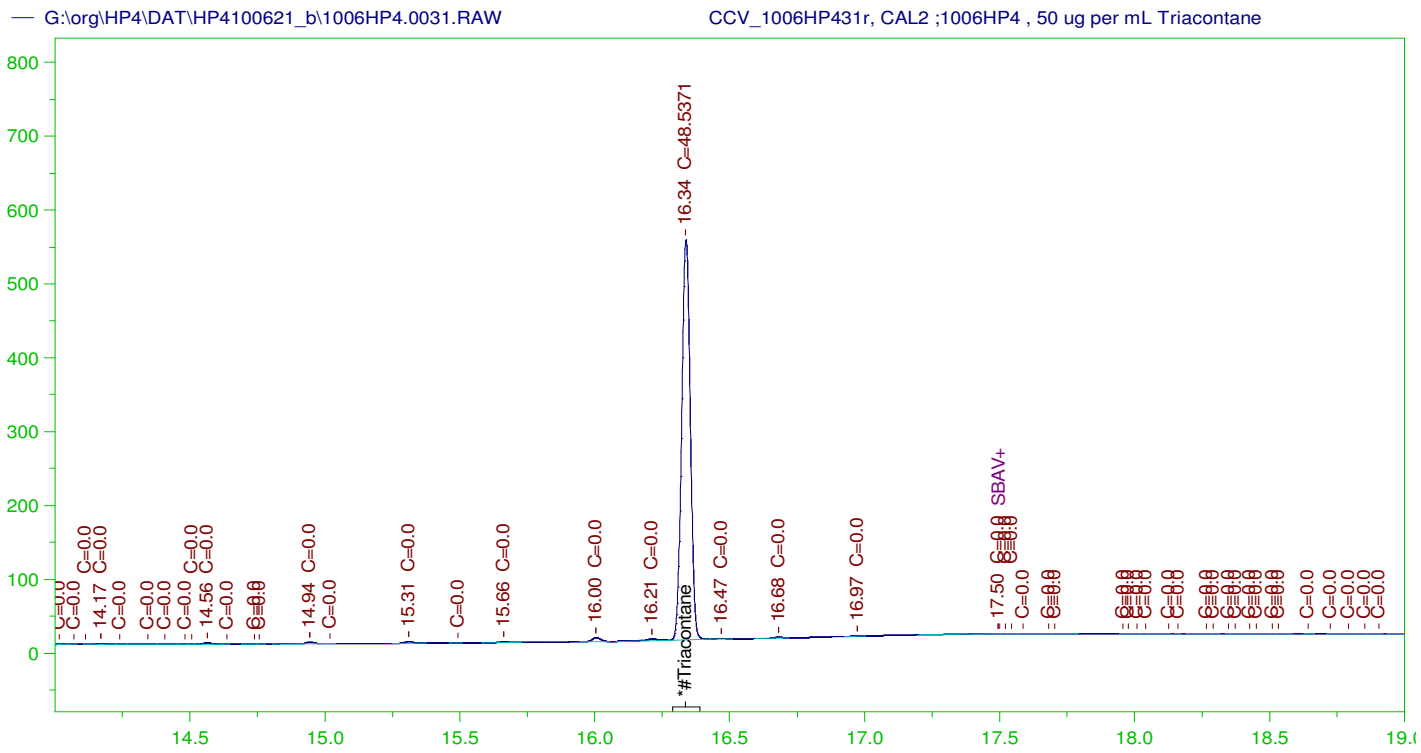
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.337	500.	1.985	.4	-

RRO Area:16216.42 RRO AMOUNT: 0.6610969

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0030.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.337	200.	1.985	.99	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP431r, CAL2 ;1006HP4 , 50 ug per mL Triacontane
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0031.RAW
Date & Time Acquired: 10/7/2021 1:53:07 PM
Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.53 to 30.05

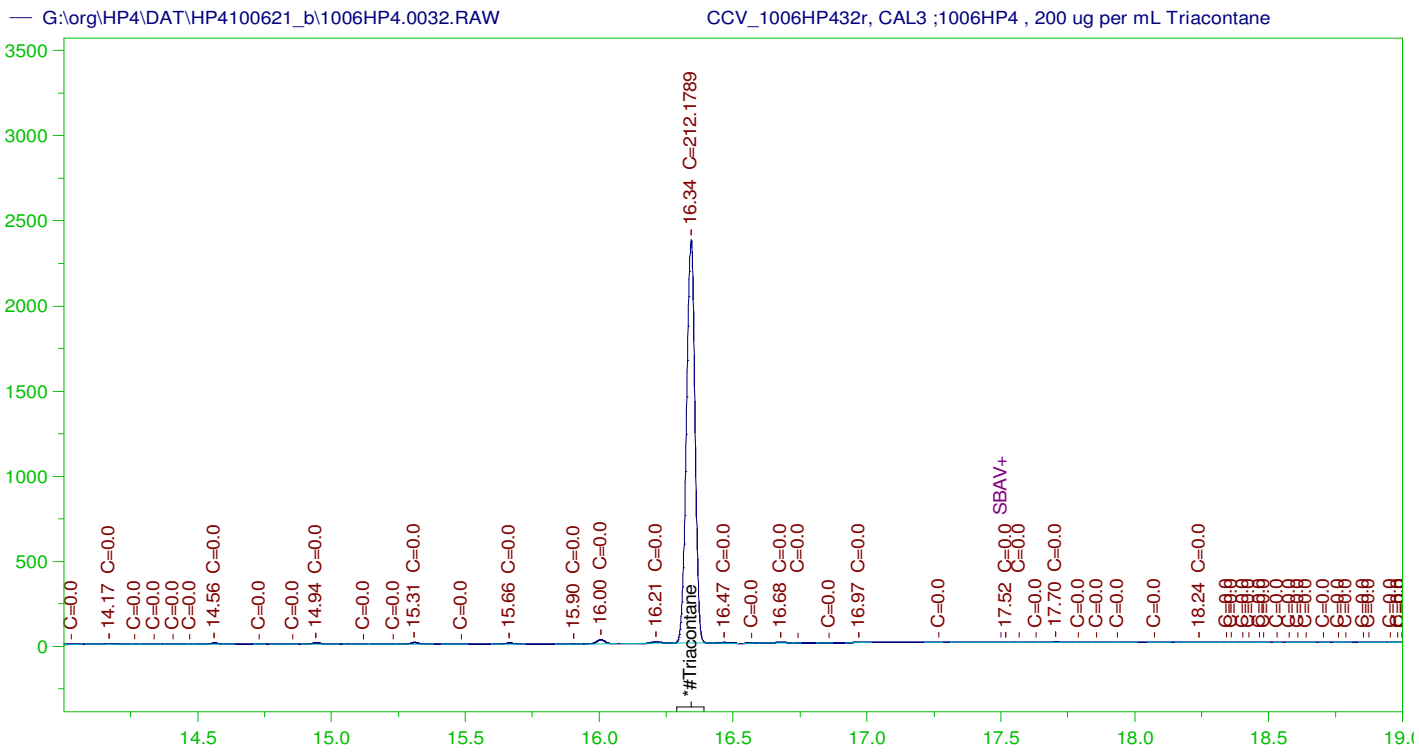
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.337	500.	48.537	9.71	-

RRO Area:50498.79 RRO AMOUNT: 2.058691

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0031.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.337	200.	48.537	24.27	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP432r, CAL3 ;1006HP4 , 200 ug per mL Triacontane
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0032.RAW
Date & Time Acquired: 10/7/2021 2:38:34 PM
Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.53 to 30.05

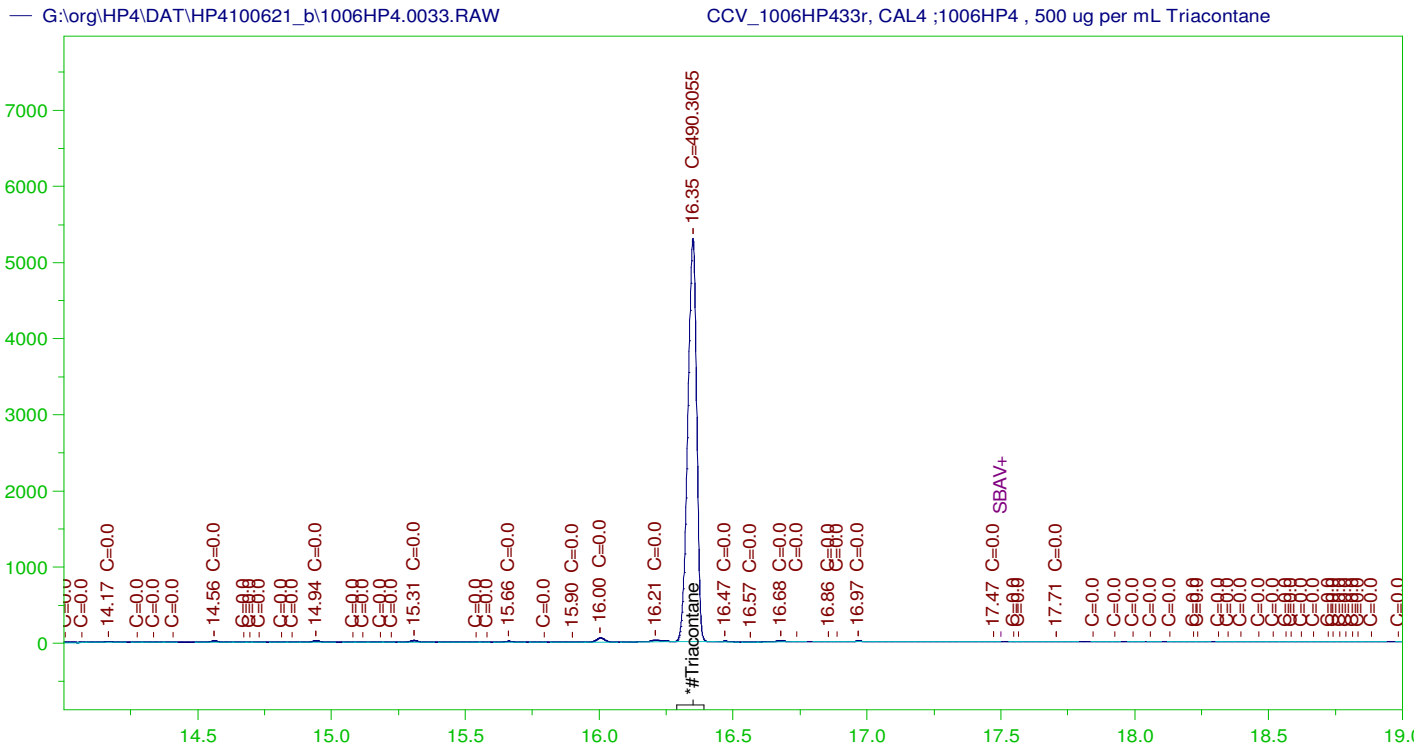
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.343	500.	212.179	42.44	-

RRO Area:223185.5 RRO AMOUNT: 9.098632

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0032.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.343	200.	212.179	106.09	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP433r, CAL4 ;1006HP4 , 500 ug per mL Triacontane
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0033.RAW
Date & Time Acquired: 10/7/2021 3:23:59 PM
Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.53 to 30.05

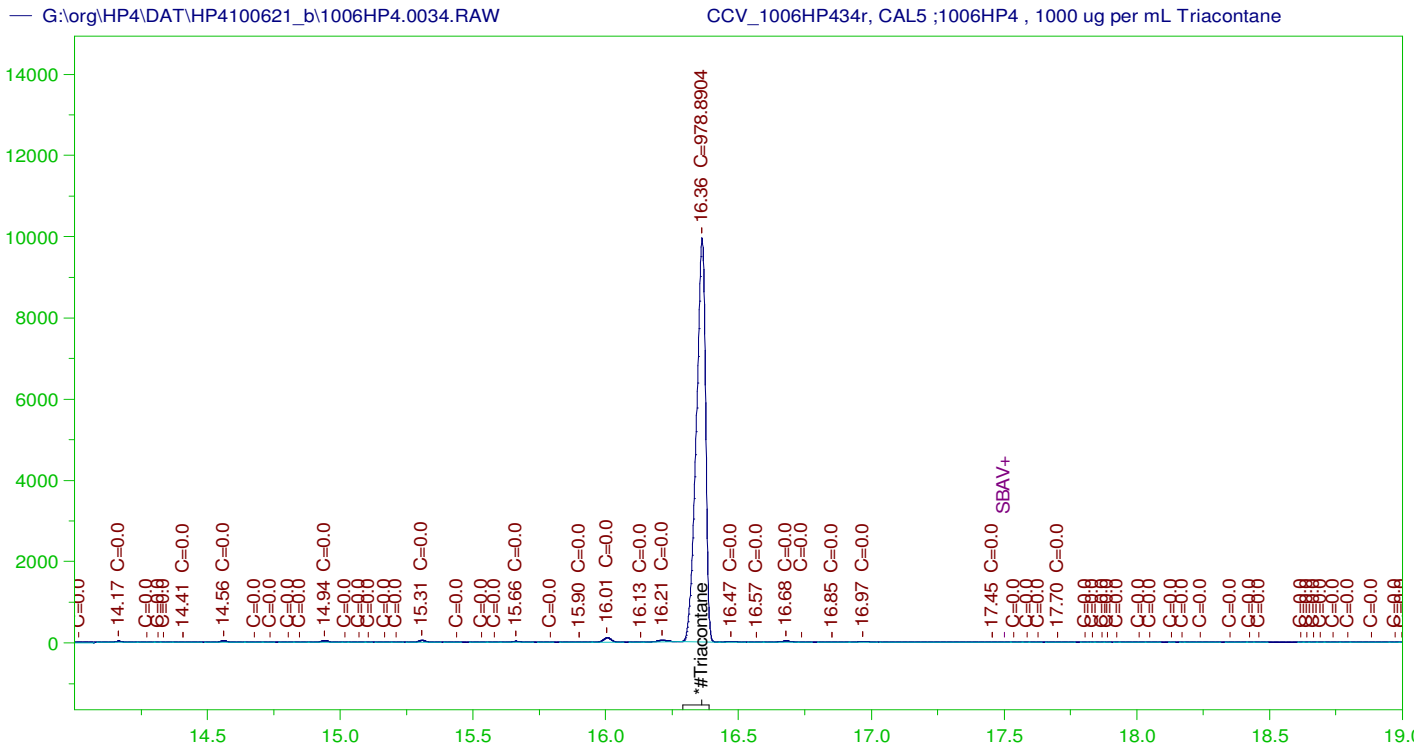
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.35	500.	490.306	98.06	-

RRO Area:522651.3 RRO AMOUNT: 21.307

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0033.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.023	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.35	200.	490.306	245.15	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP434r, CAL5 ;1006HP4 , 1000 ug per mL Triacontane
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0034.RAW
Date & Time Acquired: 10/7/2021 4:09:35 PM
Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.363	500.	978.89	195.78	-

RRO Area:1029665 RRO AMOUNT: 41.9765

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0034.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.363	200.	978.89	489.45	75-125

Write Sequence / Data File	Insert Entries(Have the first cell for entries selected) / Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.28r	CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A	g:\org\HP4\Methods\CSC211006.met	1	1	1	1	0	No Integration
G:\org\HP4\DAT\HP4100621_b\1006HP4.29r	DCM-Baseline Check-V29	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No Integration
G:\org\HP4\DAT\HP4100621_b\1006HP4.30r	CCV_1006HP407r, CAL1 ;1006HP4 , 2 ug per mL Triacontane (10 uL of Cal3 + 990 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacontane is integrated using a valley to valley integration.
G:\org\HP4\DAT\HP4100621_b\1006HP4.31r	CCV_1006HP408r, CAL2 ;1006HP4 , 50 ug per mL Triacontane (100 uL Cal4 + 900 uL of DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacontane is integrated using a valley to valley integration.
G:\org\HP4\DAT\HP4100621_b\1006HP4.32r	CCV_1006HP409r, CAL3 ;1006HP4 , 200 ug per mL Triacontane (100uL of Cal5 + 400 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacontane is integrated using a valley to valley integration.
G:\org\HP4\DAT\HP4100621_b\1006HP4.33r	CCV_1006HP404r, CAL4 ;1006HP4 , 500 ug per mL Triacontane (250uL of Cal5 + 250 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacontane is integrated using a valley to valley integration.
G:\org\HP4\DAT\HP4100621_b\1006HP4.34r	CCV_1006HP405r, CAL5 ;1006HP4 , 1000 ug per mL Triacontane (500 uL 2000 ug/mL Triacontane DRO211006A + 500 DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacontane is integrated using a valley to valley integration.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.26 11:36:11 -07:00

Energy Laboratories Inc

ANALYTICAL RUN Summary

13-Oct-21

Run ID GCFID-HP4-B_211006B

Run Start Date: 10/6/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments: 8015C Oil Range

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO180918C	50,000 ug/mL Oil Std For AK103 RRO-In DCM					CAL-OIL	8/31/2025
DRO210902A	50,000 ug/mL Oil Std for RRO-In DCM					Second Sou	9/1/2026

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764069	CCV_1006HP41	HC-8015-DRO-	CAL1		10/7/2021 12:16:	1	R368535		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		0.1652093		0.15	0	0	0	0.3	0	110%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764070	CCV_1006HP41	HC-8015-DRO-	CAL2		10/7/2021 1:47:3	1	R368535		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		1.022149		1	0	0	0	0.3	0	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764071	CCV_1006HP41	HC-8015-DRO-	CAL3		10/7/2021 3:19:0	1	R368535		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.956371		5	0	0	0	0.3	0	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764072	CCV_1006HP41	HC-8015-DRO-	CAL4		10/7/2021 4:50:1	1	R368535		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764072	CCV_1006HP41	HC-8015-DRO-	CAL4		10/7/2021 4:50:1	1	R368535		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		14.79833		15	0	0	0	0.3	0	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764073	CCV_1006HP42	HC-8015-DRO-	CAL5		10/7/2021 6:21:2	1	R368535		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		29.29968		30	0	0	0	0.3	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14764074	CCV_1006HP42	HC-8015-DRO-	ICV		10/7/2021 9:21:4	1	R368535		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.390338		5	0	0	0	0.3	0	108%	80	120	0%	

File Name: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
Version: 43

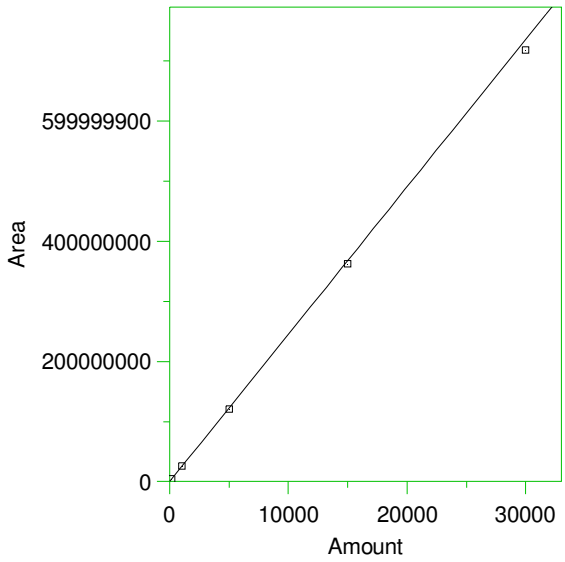
Creator: AMN
Description: 8015C-Oil Range w/Triacontane. New ICal Per 1006HP4 (2021)-2 uL Inj.;
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 500
Reference peak area reject threshold: 500
Amount units: nanograms
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 *30-40 Motor Oil



Expected retention time:	6.4 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

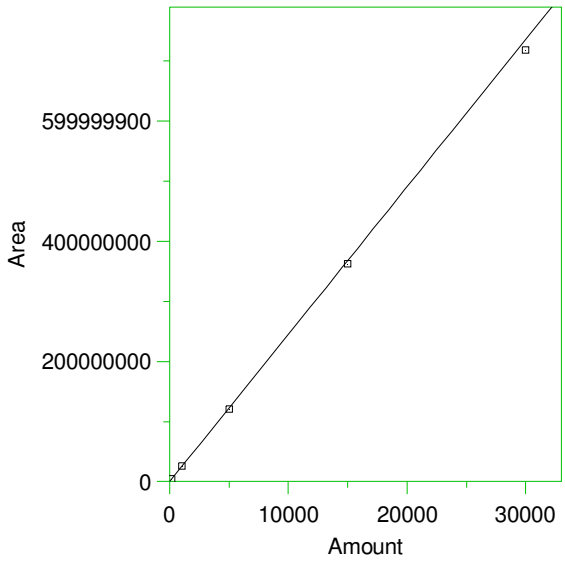
Y = 24529.56 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9990484
Average error:	1.972%
Average CF:	24529.56
RSD:	2.304%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	3765836	25105.57	2.348	Manual	1/1/2022 10:32:22 AM
2	1000	2.516261E+07	25162.61	2.581	Manual	10/7/2021 12:56:01 PM
3	5000	1.213971E+08	24279.42	-1.020	Manual	10/7/2021 12:55:18 PM
4	15000	3.623479E+08	24156.53	-1.521	Manual	10/7/2021 12:55:30 PM
5	30000	7.183105E+08	23943.68	-2.388	Manual	10/7/2021 12:55:47 PM

2 #C20



Expected retention time: 12.58 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

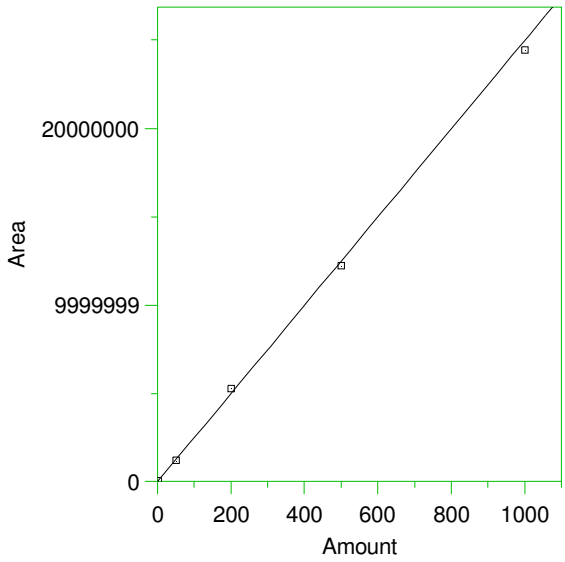
Single peak quantification by area

Y = 24529.56 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9990484
Average error: 1.972%
Average CF: 24529.56
RSD: 2.304%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	3765836	25105.57	2.348	Manual	1/1/2022 10:32:46 AM
2	1000	2.516261E+07	25162.61	2.581	Manual	1/1/2022 10:32:43 AM
3	5000	1.213971E+08	24279.42	-1.020	Manual	1/1/2022 10:32:41 AM
4	15000	3.623479E+08	24156.53	-1.521	Manual	1/1/2022 10:32:39 AM
5	30000	7.183105E+08	23943.68	-2.388	Manual	1/1/2022 10:32:36 AM

3 *#Triacontane



Expected retention time: 16.34 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

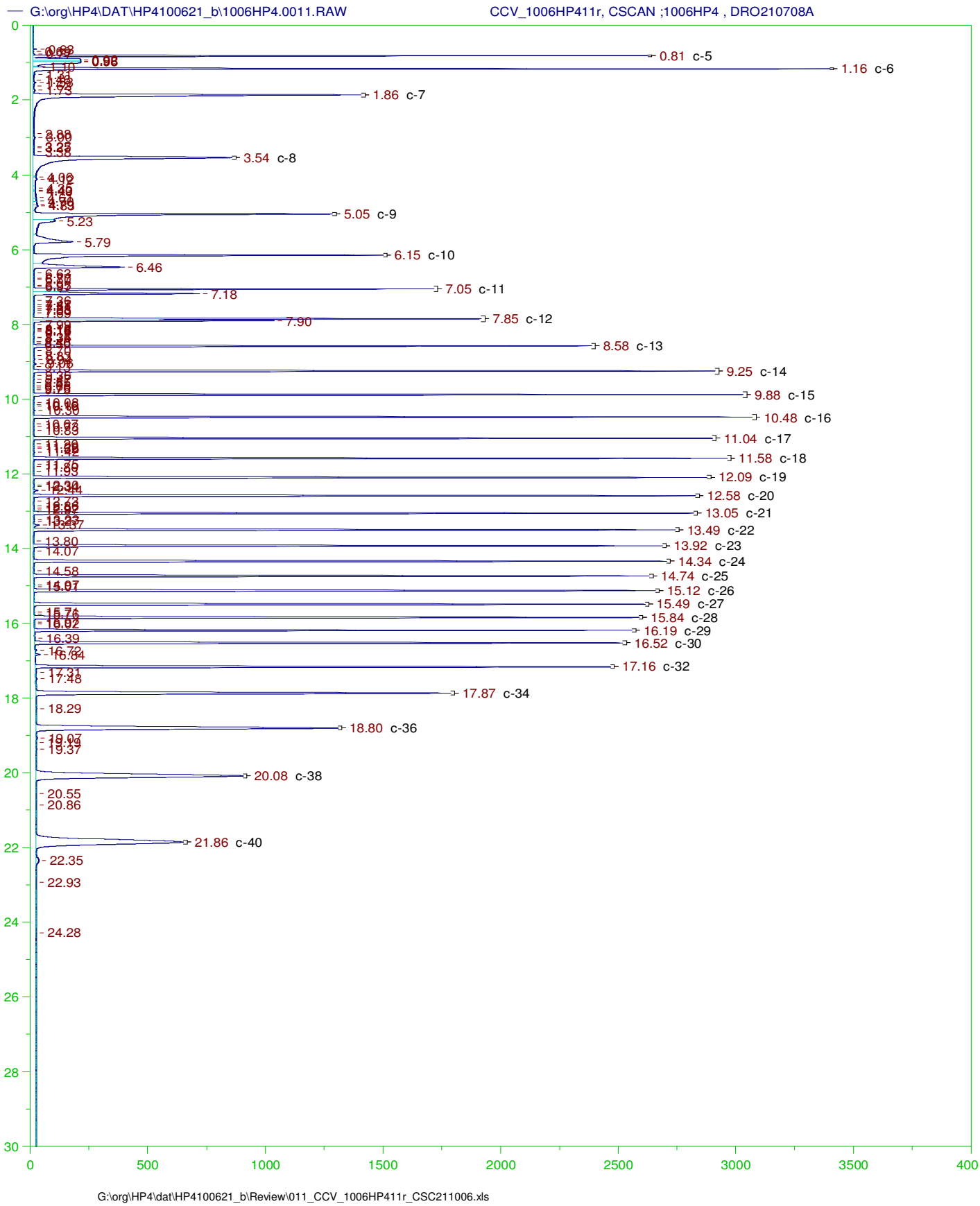
Single peak quantification by area

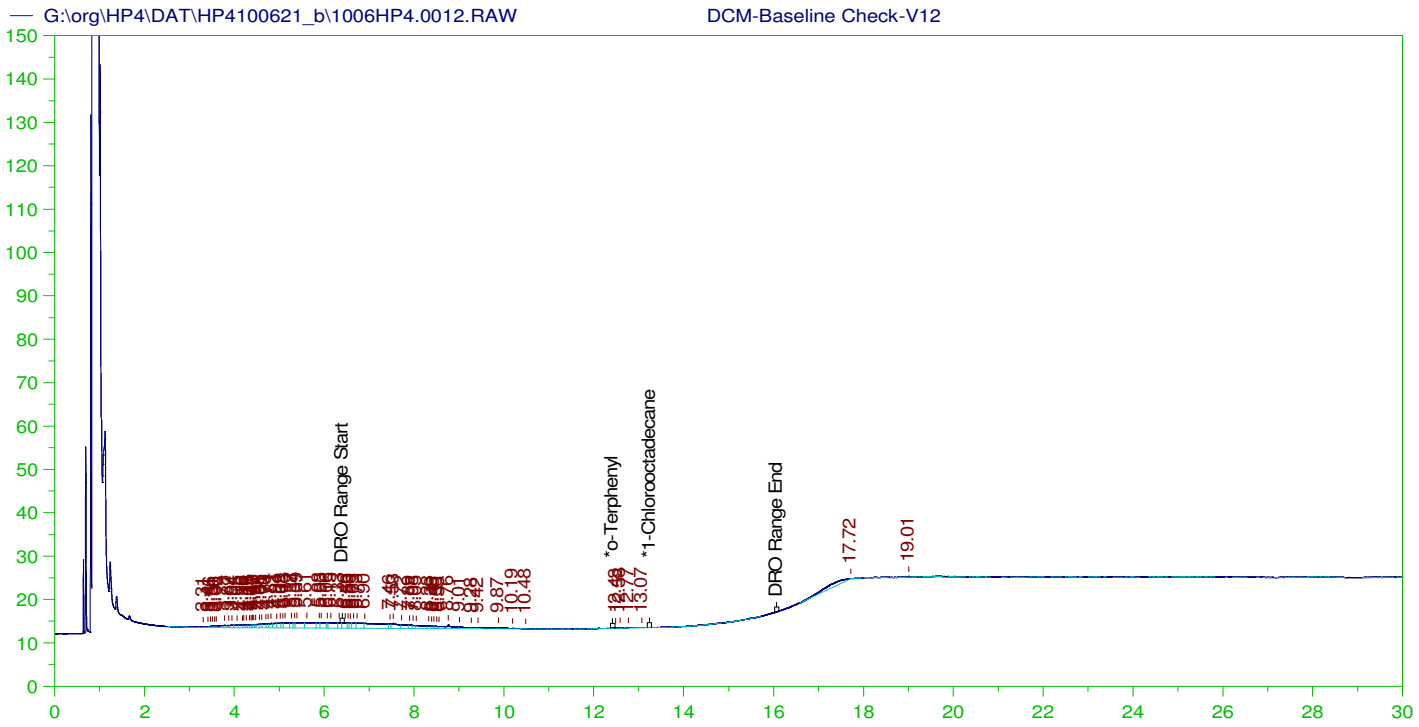
Y = 24973.81 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9989417
Average error: 2.783%
Average CF: 24973.81
RSD: 3.701%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	50369.5	25184.75	0.845	Manual	10/7/2021 1:17:20 PM
2	50	1212157	24243.14	-2.926	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0015.BND	10/7/2021 12:47:26 PM
3	200	5300126	26500.63	6.114	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0017.BND	10/7/2021 12:47:56 PM
4	500	1.22448E+07	24489.6	-1.939	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0019.BND	10/7/2021 12:48:04 PM
5	1000	2.445095E+07	24450.95	-2.094	Manual	10/7/2021 4:09:51 PM

Write Sequence / Data File	Insert Entries(Have the first cell for entries selecte / Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
G:\org\HP4\DAT\HP4100621_b\1006HP4.11r	CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A	g:\org\HP4\Methods\CSC211006.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.12r	DCM-Baseline Check-V12	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.13r	CCV_1006HP413r, CAL1 ;1006HP4 , 150 ug per mLOil (10 uL of Cal4 + 990 uL DCM(14354)	G:\Org\HP4\methods\DR_8015-13-OIL-AA-L%.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.14r	DCM-Baseline Check-V14	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.15r	CCV_1006HP415r, CAL2 ;1006HP4 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(14354)	G:\Org\HP4\methods\DR_8015-15-OIL-AA-L%.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.16r	DCM-Baseline Check-V16	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.17r	CCV_1006HP417r, CAL3 ;1006HP4 , 5000 ug per mL Oil (200 uL of Cal 4 + 400 uL DCM(14354)	G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.18r	DCM-Baseline Check-V18	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.19r	CCV_1006HP419r, CAL4 ;1006HP4 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(14354)	G:\Org\HP4\methods\DR_8015-19-OIL-AA-L%.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.20r	DCM-Baseline Check-V20	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.21r	CCV_1006HP423r, CAL5 ;1006HP4 , 30000 ug per mL Oil (600 uL of DRO180918C + 400 uL of DCM)(14354)	G:\Org\HP4\methods\DR_8015-21-OIL-AA-L%.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.22r	DCM-Baseline Check-V22	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.23r	DCM-Baseline Check-V23	G:\Org\HP4\methods\D3_8015-MX-LEXP.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.24r	DCM-Baseline Check-V24	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
G:\org\HP4\DAT\HP4100621_b\1006HP4.25r	CCV_1006HP425r, Second Source ;1006HP4 , 5000 ug per mL Oil (100 uL of DRO210902A + 900 uL of DCM)	G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met	1	1	1	1	0


G:\org\HP4\DAT\HP4100621_b\1006HP4.0011.RAW
CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A
0.81 c-5
1.16 c-6
1.86 c-7
3.54 c-8
5.05 c-9
5.23
5.79
6.15 c-10
6.46
7.05 c-11
7.18
7.85 c-12
7.90
8.58 c-13
9.25 c-14
9.88 c-15
10.48 c-16
11.04 c-17
11.58 c-18
12.09 c-19
12.58 c-20
13.05 c-21
13.49 c-22
13.80
13.92 c-23
14.07
14.34 c-24
14.58
14.74 c-25
15.12 c-26
15.49 c-27
15.84 c-28
16.19 c-29
16.39
16.52 c-30
16.72
16.84
17.16 c-32
17.31
17.48
17.87 c-34
18.29
18.80 c-36
19.07
19.37
20.08 c-38
20.55
20.86
21.86 c-40
22.35
22.93
24.28
0
500
1000
1500
2000
2500
3000
3500
400
G:\org\HP4\dat\HP4100621_b\Review\011_CCV_1006HP411r_CSC211006.xls



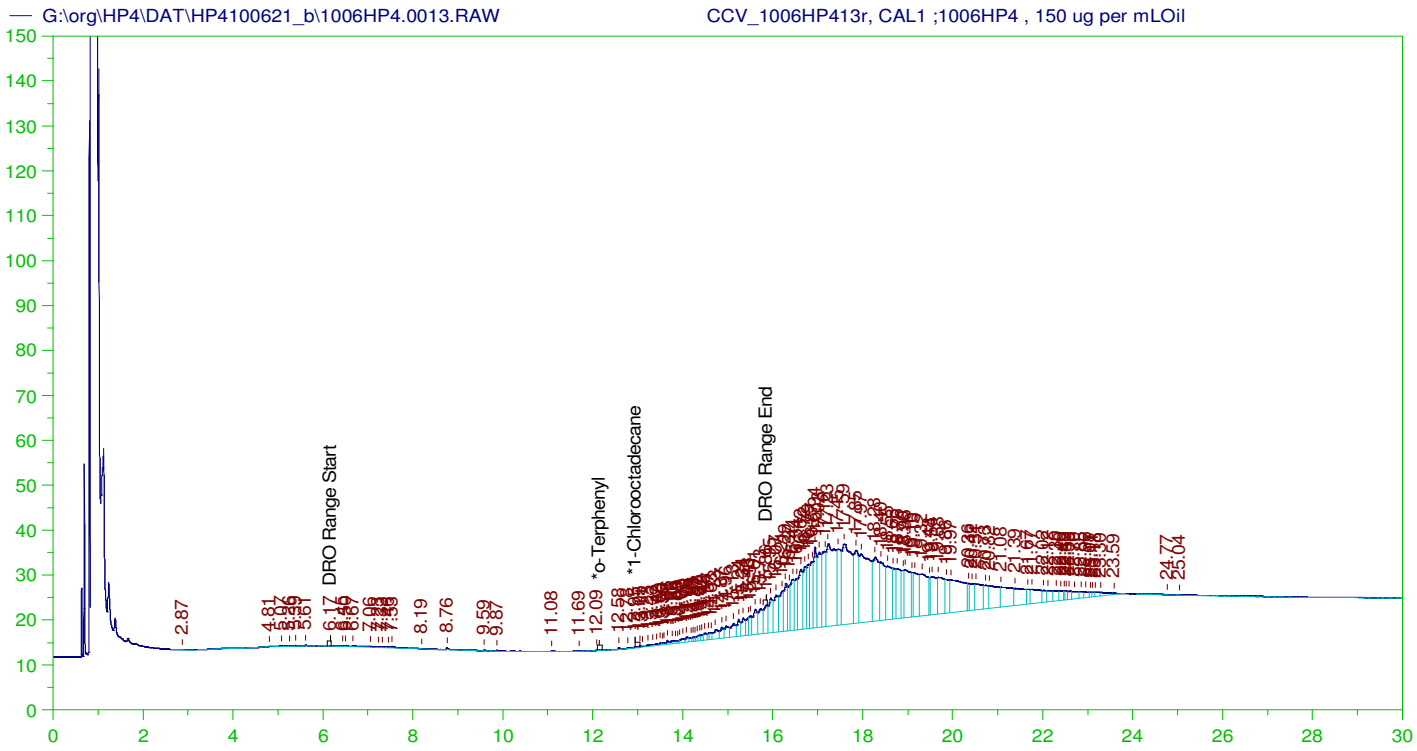
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V12
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0012.RAW
Date & Time Acquired: 10/6/2021 11:30:37 PM
Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.914	200.	.	.	-
*1-Chlorooctadecane	29.914	200.	.	.	-

DRO Area:151604.2 DRO Amount: 5.824311
TEH Area:344150.3 TEH Amount: 13.22152



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1006HP413r, CAL1 ;1006HP4 , 150 ug per mLOil
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0013.RAW
Date & Time Acquired: 10/7/2021 12:16:08 AM
Method File: G:\Org\HP4\methods\DR_8015-13-OIL-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56
Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	29.973	200.	.	.	-
*1-Chlorooctadecane	12.946	200.	.024	.01	-

DRO Area:350454.1 DRO Amount: 14.28701
TEH (OiL Range) Area:4052512 TEH (Oil Range)Amount: 165.2093

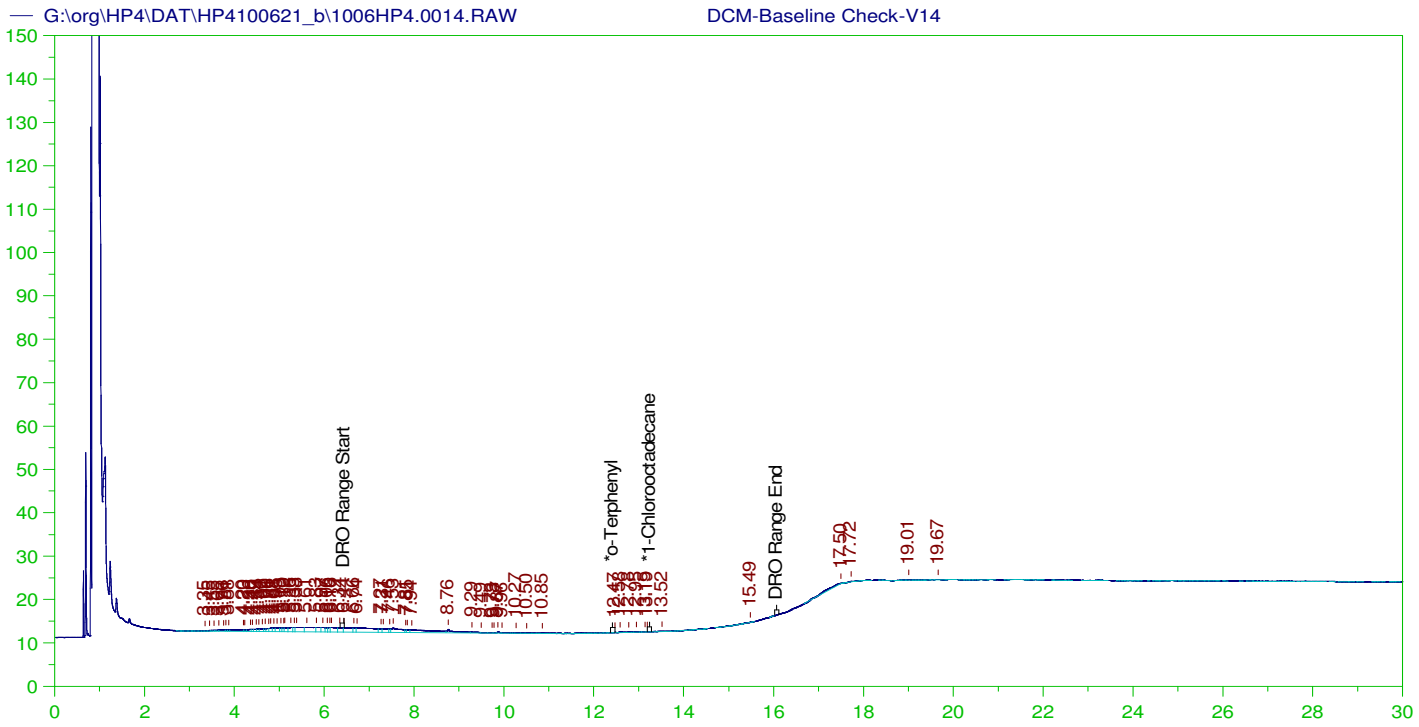
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0013.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	165.21	3.3	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	29.973	200.	.	.	85-115
*1-Chlorooctadecane	12.946	200.	.024	.01	85-115

AMN 10/13/2021

G:\org\HP4\dat\HP4100621_b\Review\013_CCV_1006HP413r_DR_8015-13-OIL-AA-L%.xls



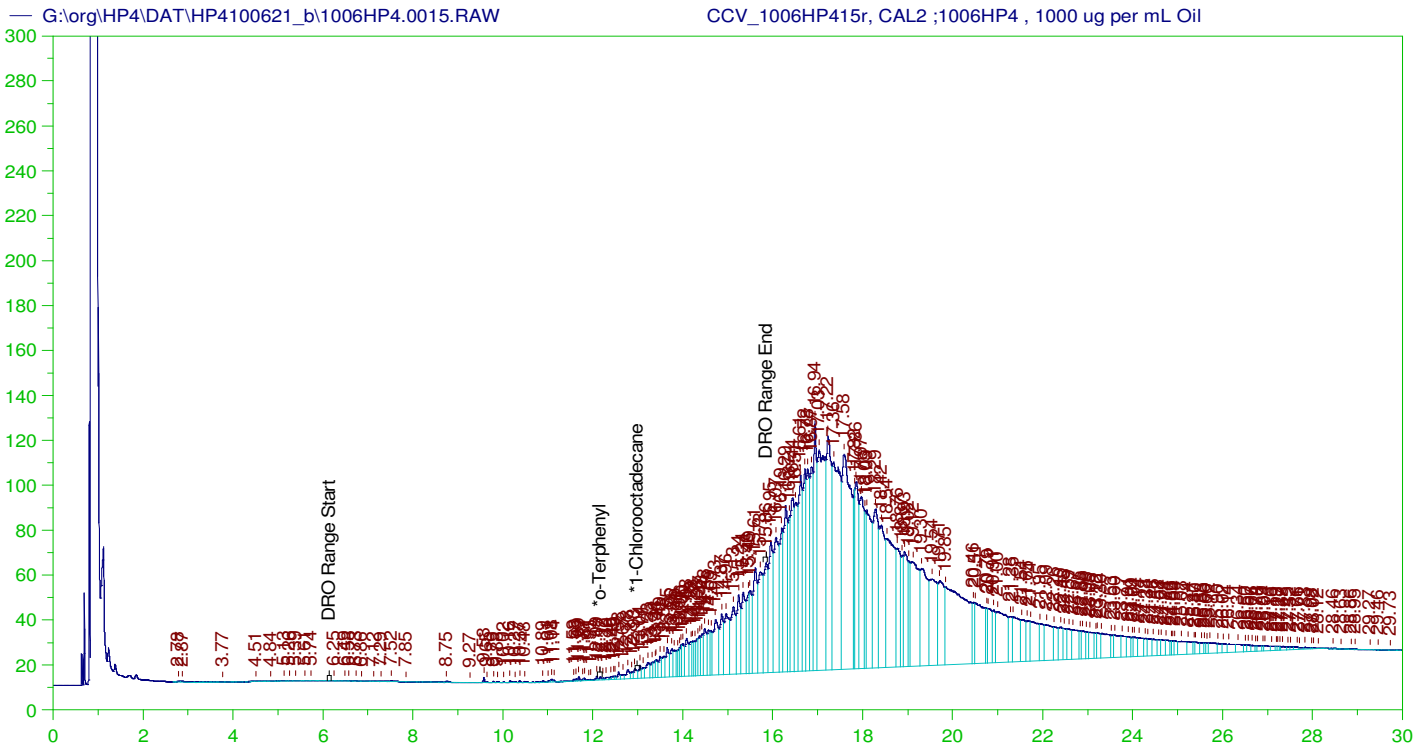
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V14
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0014.RAW
Date & Time Acquired: 10/7/2021 1:01:51 AM
Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.884	200.	.	.	-
*1-Chlorooctadecane	29.884	200.	.	.	-

DRO Area:131624.4 DRO Amount: 5.056731
TEH Area:277425.9 TEH Amount: 10.65811



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP415r, CAL2 ;1006HP4 , 1000 ug per mL Oil
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0015.RAW
Date & Time Acquired: 10/7/2021 1:47:37 AM
Method File: G:\Org\HP4\methods\DR_8015-15-OIL-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56
Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.166	200.	.147	.07	-
*1-Chlorooctadecane	29.932	200.	.	.	-

DRO Area:3765940 DRO Amount: 153.5266
TEH (Oil Range) Area:2.507288E+07 TEH (Oil Range)Amount: 1022.149

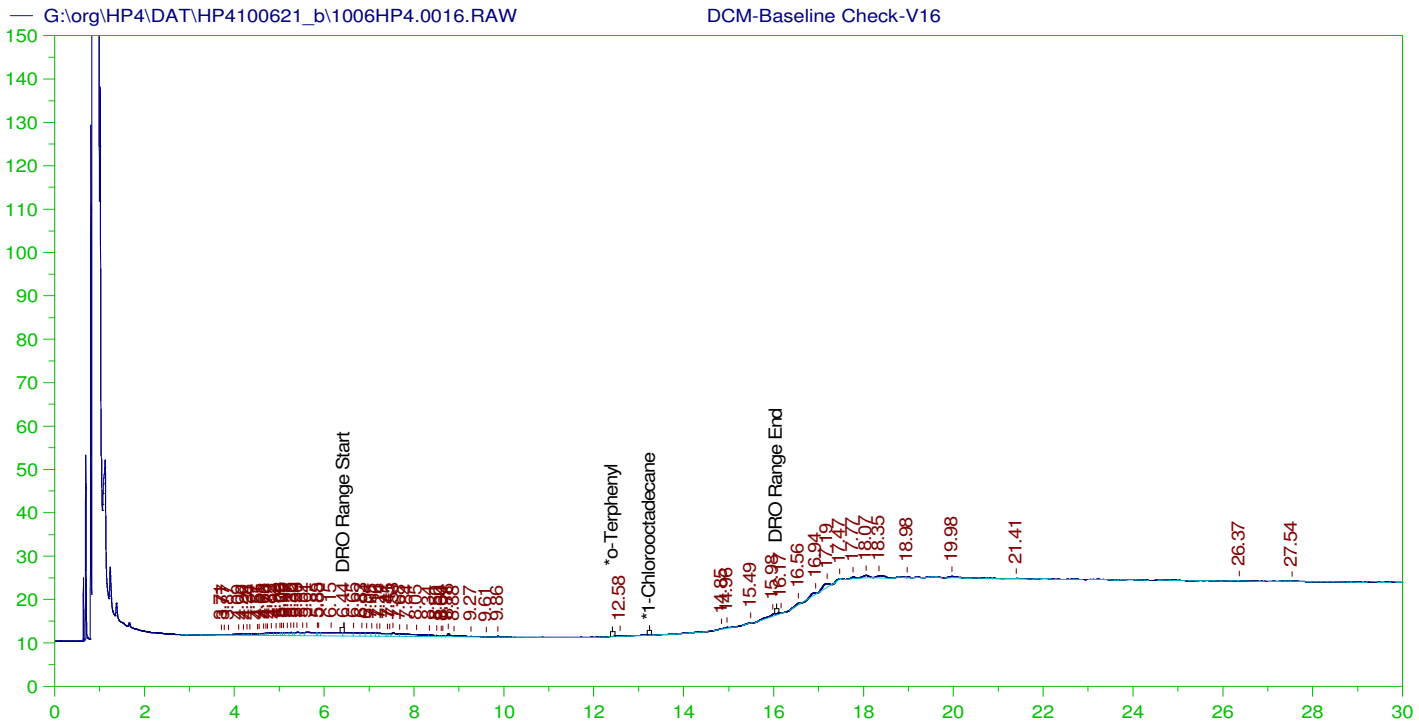
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0015.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	1022.15	20.44	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.166	200.	.147	.07	85-115
*1-Chlorooctadecane	29.932	200.	.	.	85-115

AMN 10/13/2021

G:\org\HP4\dat\HP4100621_b\Review\015_CCV_1006HP415r_DR_8015-15-OIL-AA-L%.xls



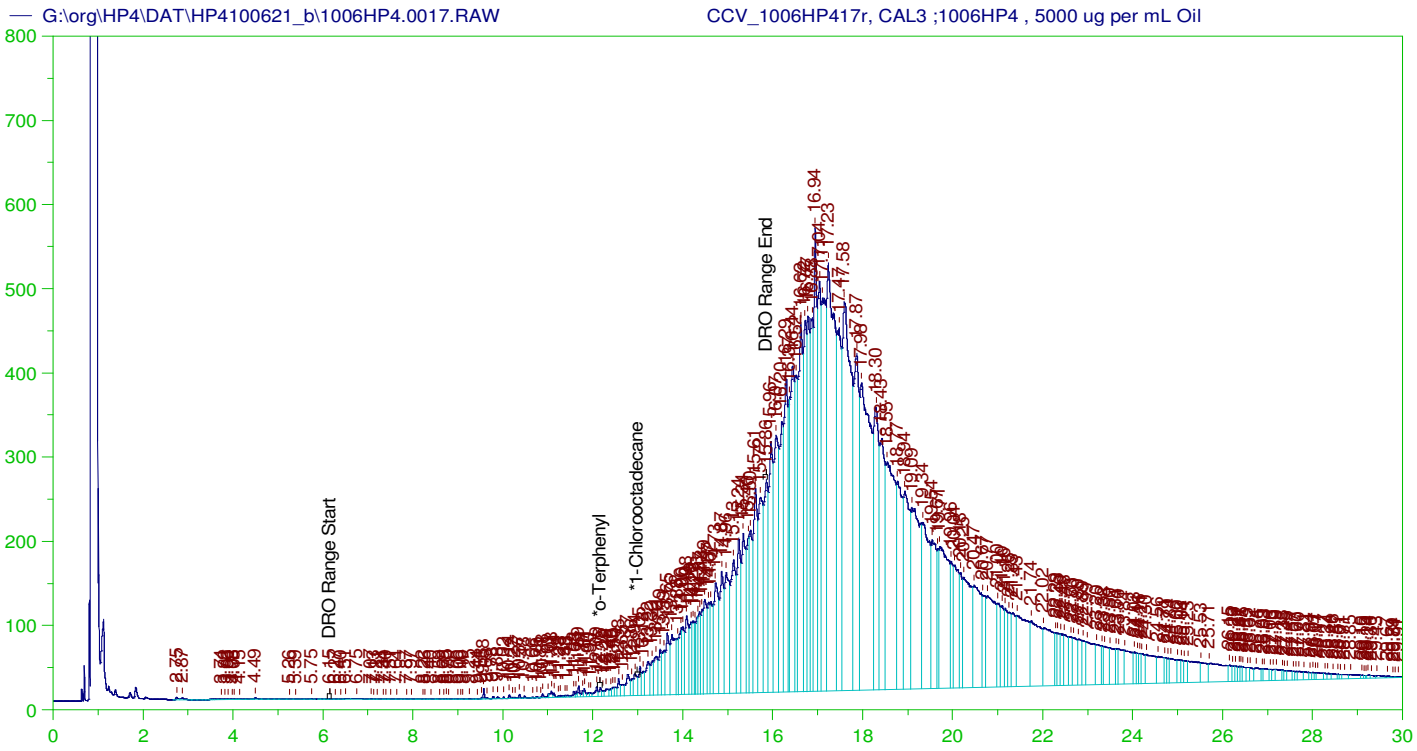
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V16
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0016.RAW
Date & Time Acquired: 10/7/2021 2:33:20 AM
Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.907	200.	.	.	-
*1-Chlorooctadecane	29.907	200.	.	.	-

DRO Area:114216.7 DRO Amount: 4.387964
TEH Area:265335.9 TEH Amount: 10.19364



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP417r, CAL3 ;1006HP4 , 5000 ug per mL Oil
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0017.RAW
Date & Time Acquired: 10/7/2021 3:19:06 AM
Method File: G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56
Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.165	200.	1.127	.56	-
*1-Chlorooctadecane	29.907	200.	.	.	-

DRO Area:2.051403E+07 DRO Amount: 836.2982
TEH (Oil Range) Area:1.215776E+08 TEH (Oil Range) Amount: 4956.371

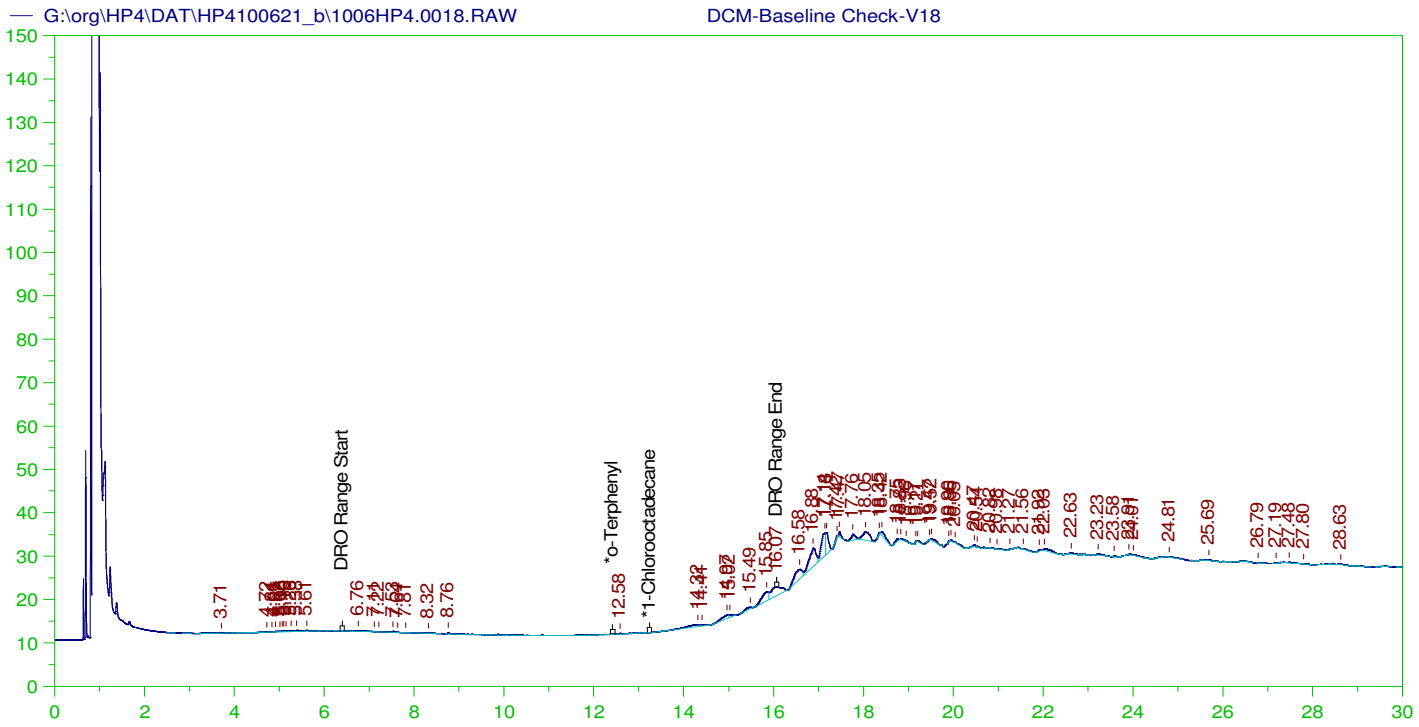
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0017.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	4956.37	99.13	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.165	200.	1.127	.56	85-115
*1-Chlorooctadecane	29.907	200.	.	.	85-115

AMN 10/13/2021

G:\org\HP4\dat\HP4100621_b\Review\017_CCV_1006HP417r_DR_8015-17-OIL-AA-L%.xls



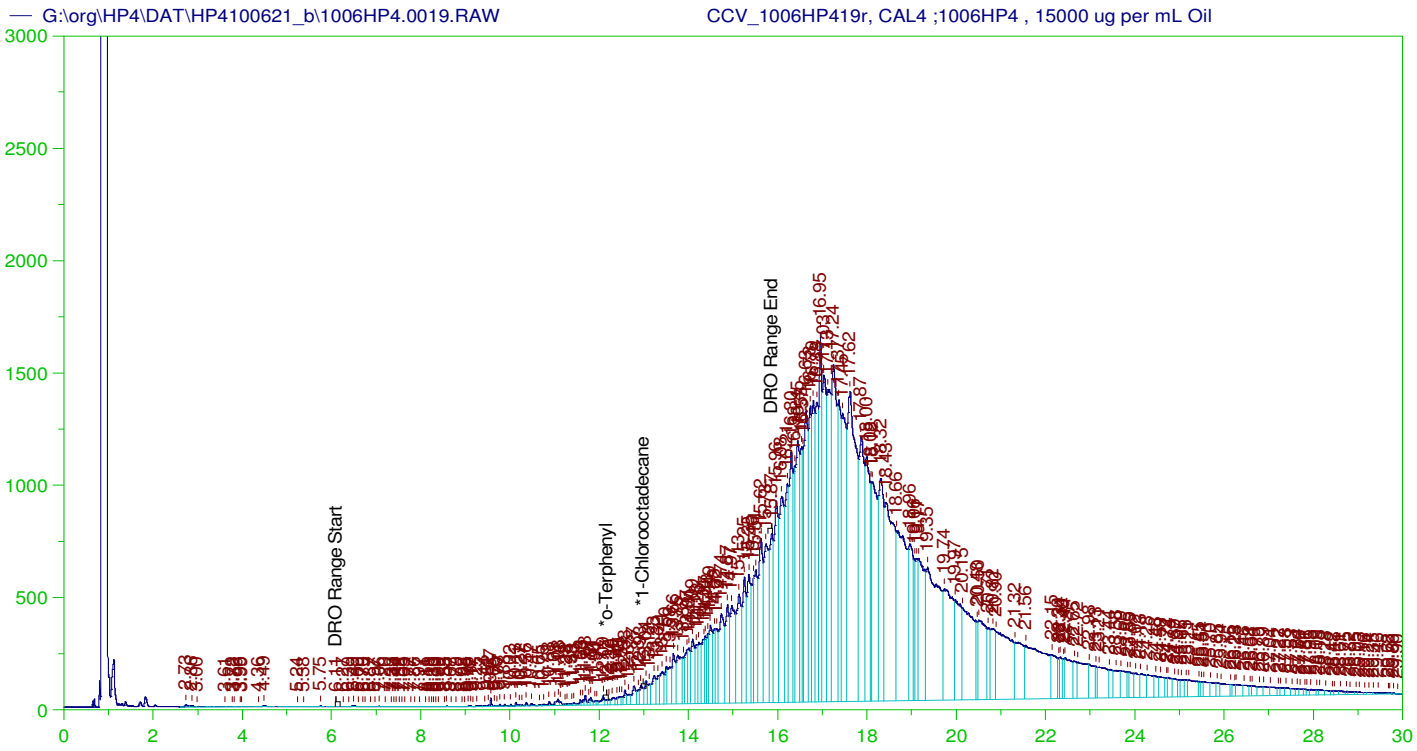
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V18
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0018.RAW
Date & Time Acquired: 10/7/2021 4:04:45 AM
Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.931	200.	.	.	-
*1-Chlorooctadecane	29.931	200.	.	.	-

DRO Area:108588.8 DRO Amount: 4.171752
TEH Area:364372 TEH Amount: 13.9984



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP419r, CAL4 ;1006HP4 , 15000 ug per mL Oil
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0019.RAW
Date & Time Acquired: 10/7/2021 4:50:17 AM
Method File: G:\Org\HP4\methods\DR_8015-19-OIL-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56
Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.166	200.	2.668	1.33	-
*1-Chlorooctadecane	29.898	200.	.	.	-

DRO Area:6.321696E+07 DRO Amount: 2577.175
TEH (Oil Range) Area:3.629964E+08 TEH (Oil Range) Amount: 14798.33

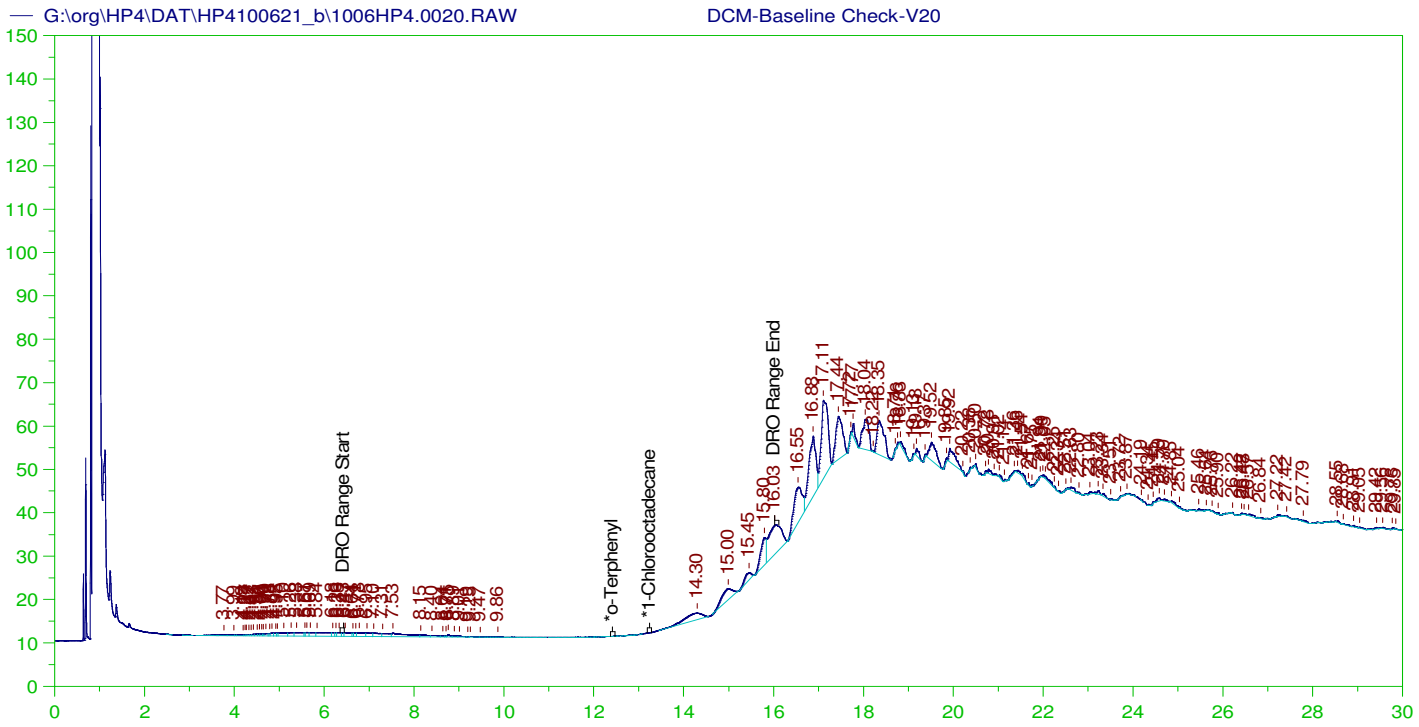
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0019.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	14798.33	295.97	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.166	200.	2.668	1.33	85-115
*1-Chlorooctadecane	29.898	200.	.	.	85-115

AMN 10/13/2021

G:\org\HP4\dat\HP4100621_b\Review\019_CCV_1006HP419r_DR_8015-19-OIL-AA-L%.xls



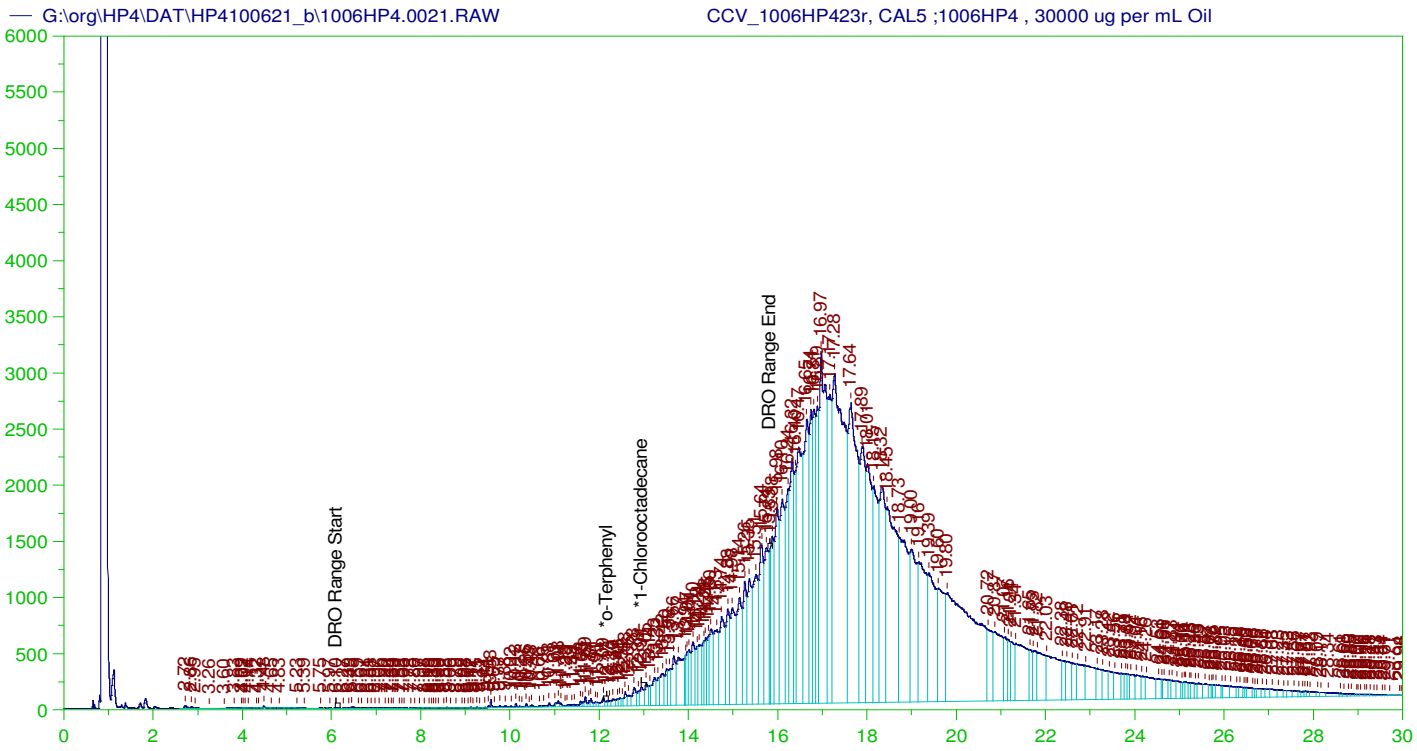
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V20
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0020.RAW
Date & Time Acquired: 10/7/2021 5:35:48 AM
Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.983	200.	.	.	-
*1-Chlorooctadecane	29.983	200.	.	.	-

DRO Area:396511 DRO Amount: 15.23311
TEH Area:1438866 TEH Amount: 55.27819



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP423r, CAL5 ;1006HP4 , 30000 ug per mL Oil
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0021.RAW
Date & Time Acquired: 10/7/2021 6:21:29 AM
Method File: G:\Org\HP4\methods\DR_8015-21-OIL-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56
Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.17	200.	5.119	2.56	-
*1-Chlorooctadecane	12.944	200.	32.459	16.23	-

DRO Area:1.18208E+08 DRO Amount: 4819.003
TEH (Oil Range) Area:7.187084E+08 TEH (Oil Range) Amount: 29299.68

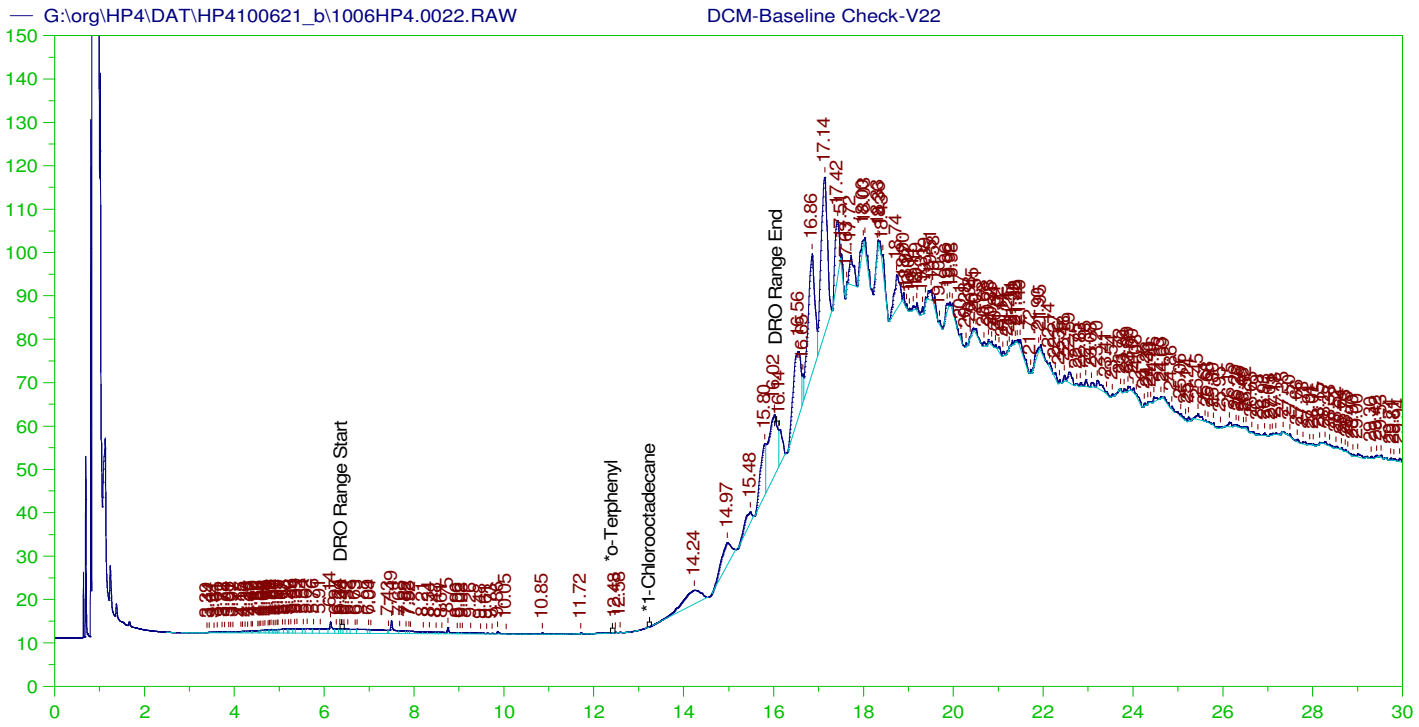
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0021.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	29299.68	585.99	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.17	200.	5.119	2.56	85-115
*1-Chlorooctadecane	12.944	200.	32.459	16.23	85-115

AMN 10/13/2021

G:\org\HP4\dat\HP4100621_b\Review\021_CCV_1006HP423r_DR_8015-21-OIL-AA-L%.xls

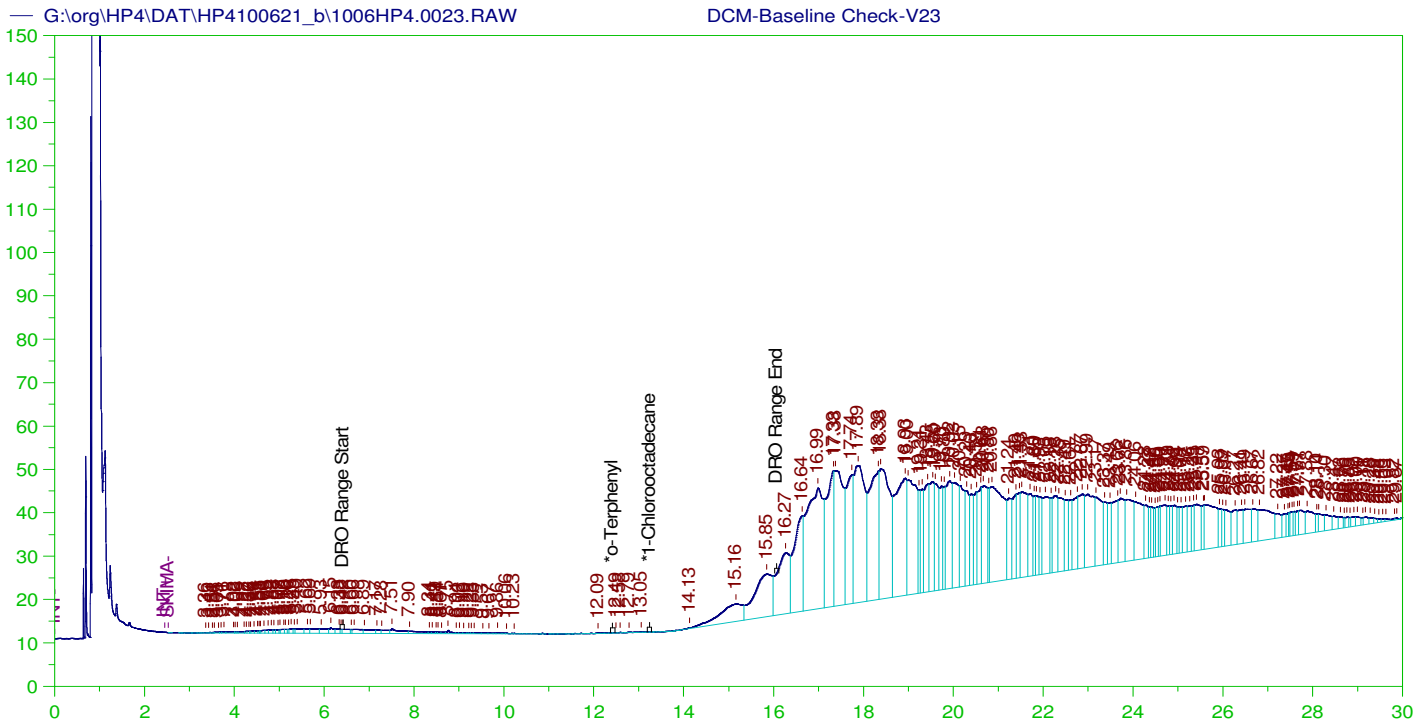


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V22
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0022.RAW
Date & Time Acquired: 10/7/2021 7:06:39 AM
Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.94	200.	.	.	-
*1-Chlorooctadecane	29.94	200.	.	.	-

DRO Area:659389.9 DRO Amount: 25.33236
TEH Area:2246216 TEH Amount: 86.29485



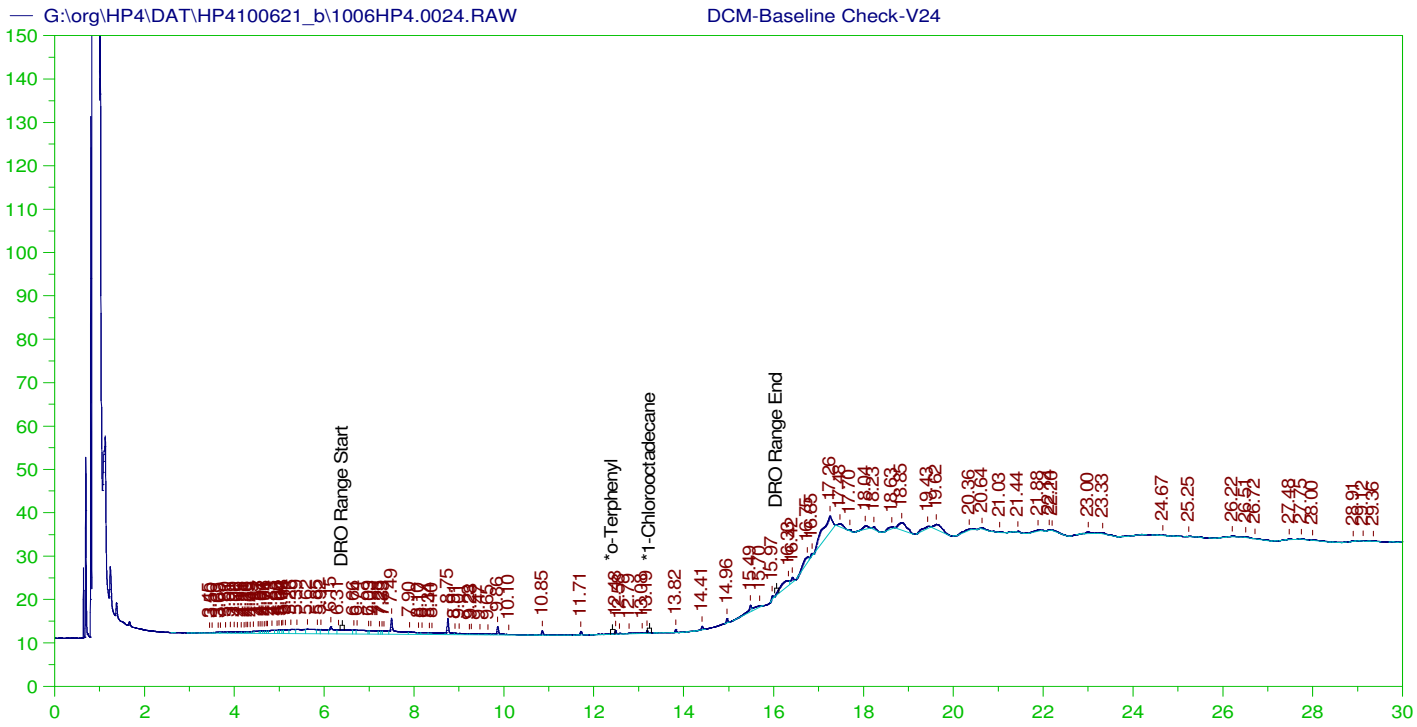
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V23
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0023.RAW
Date & Time Acquired: 10/7/2021 7:51:25 AM
Method File: G:\Org\HP4\methods\D3_8015-MX-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.979	200.	.	.	-
*1-Chlorooctadecane	29.979	200.	.	.	-

DRO Area:556661.1 DRO Amount: 21.38574
TEH Area:1.320998E+07 TEH Amount: 507.4994



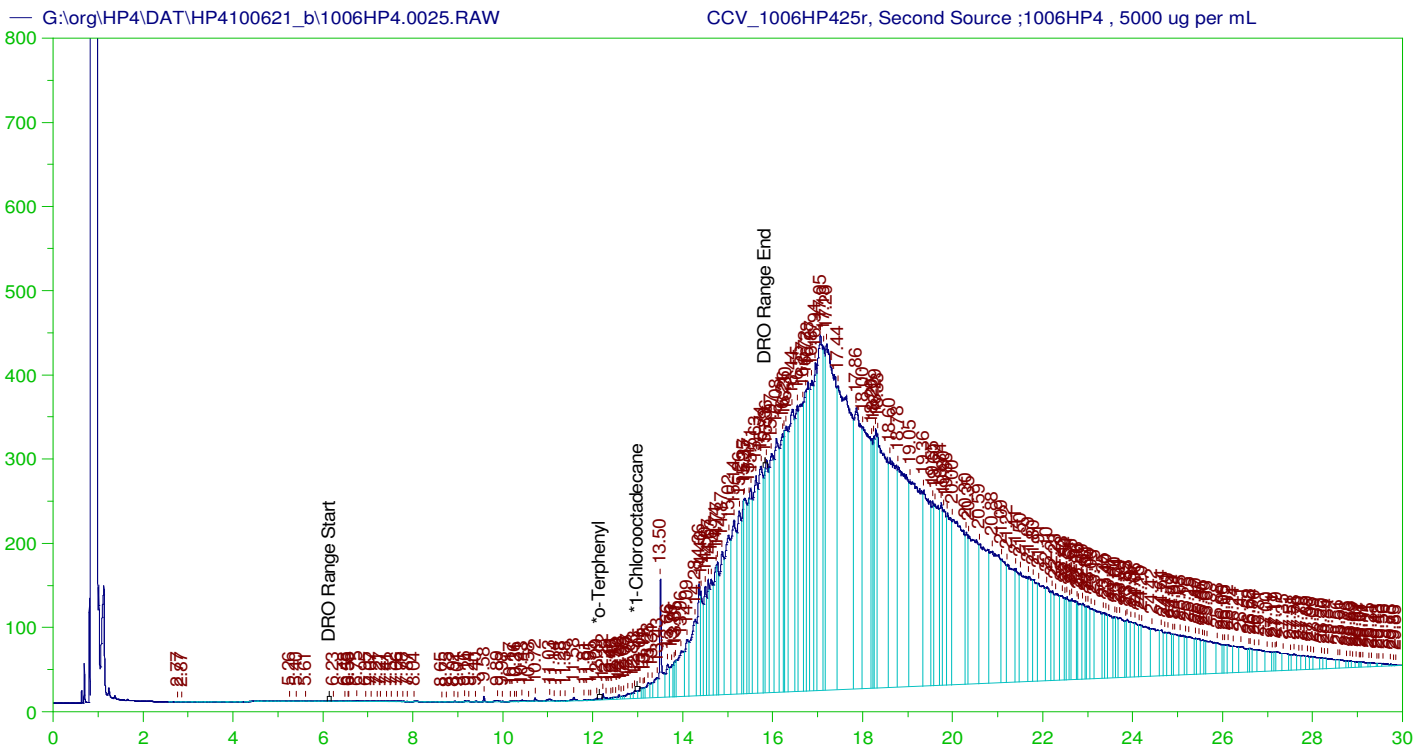
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V24
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0024.RAW
Date & Time Acquired: 10/7/2021 8:36:35 AM
Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.993	200.	.	.	-
*1-Chlorooctadecane	29.993	200.	.	.	-

DRO Area:143991.1 DRO Amount: 5.531833
TEH Area:496648.4 TEH Amount: 19.08018



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP425r, Second Source ;1006HP4 , 5000 ug per mL
Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0025.RAW
Date & Time Acquired: 10/7/2021 9:21:40 AM
Method File: G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56
Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.852	200.	.	.	-
*1-Chlorooctadecane	29.852	200.	.	.	-

DRO Area:2.19787E+07 DRO Amount: 896.0085
TEH (Oil Range) Area:1.322226E+08 TEH (Oil Range) Amount: 5390.338

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0025.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	5390.34	107.81	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC	LIMITS
*o-Terphenyl	29.852	200.	.	.		85-115
*1-Chlorooctadecane	29.852	200.	.	.		85-115

AMN 10/13/2021

G:\org\HP4\dat\HP4100621_b\Review\025_CCV_1006HP425r_DR_8015-17-OIL-AA-L%.xls

Write Sequence Data File	Insert Entries(Have the first cell for entries selecte Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	**Manual Integrations**
G:\org\HP4\DAT\HP4100621_b\1006HP4.11r	CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A	g:\org\HP4\Methods\CSC211006.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.12r	DCM-Baseline Check-V12	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.13r	CCV_1006HP413r, CAL1 ;1006HP4 , 150 ug per mLOil (10 uL of Cal4 + 990 uL DCM(14354)	G:\Org\HP4\methods\DR_8015-13-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Set Baseline Now at 23.18
G:\org\HP4\DAT\HP4100621_b\1006HP4.14r	DCM-Baseline Check-V14	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.15r	CCV_1006HP415r, CAL2 ;1006HP4 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(14354)	G:\Org\HP4\methods\DR_8015-15-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Set Baseline Now at 28 .22
G:\org\HP4\DAT\HP4100621_b\1006HP4.16r	DCM-Baseline Check-V16	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.17r	CCV_1006HP417r, CAL3 ;1006HP4 , 5000 ug per mL Oil (200 uL of Cal 4 + 400 uL DCM(14354)	G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline.
G:\org\HP4\DAT\HP4100621_b\1006HP4.18r	DCM-Baseline Check-V18	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.19r	CCV_1006HP419r, CAL4 ;1006HP4 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(14354)	G:\Org\HP4\methods\DR_8015-19-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline.
G:\org\HP4\DAT\HP4100621_b\1006HP4.20r	DCM-Baseline Check-V20	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.21r	CCV_1006HP423r, CAL5 ;1006HP4 , 30000 ug per mL Oil (600 uL of DRO180918C + 400 uL of DCM)(14354)	G:\Org\HP4\methods\DR_8015-21-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline.
G:\org\HP4\DAT\HP4100621_b\1006HP4.22r	DCM-Baseline Check-V22	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.23r	DCM-Baseline Check-V23	G:\Org\HP4\methods\D3_8015-MX-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.24r	DCM-Baseline Check-V24	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4100621_b\1006HP4.25r	CCV_1006HP425r, Second Source ;1006HP4 , 5000 ug per mL Oil (100 uL of DRO210902A + 900 uL of DCM)	G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline.

Digitally signed by
Ann Nebel
Date: 2022.01.17 15:08:07 -07:00

Energy Laboratories Inc

ANALYTICAL RUN Summary

02-Nov-21

Run ID GCFID-HP4-B_211101A

Run Start Date:	11/1/2021
Analyst:	Ann Nebel
Ical:	
Column ID:	
Comments:	ICAL for SW8015C_DRO211102OA

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211012A	Diesel Fuel #2 50,000 ug/mL in DCM					DIESEL-CA	4/30/2023
DRO211012B	#2 Diesel in Acetone 150,000 ug/mL					SECOND S	11/5/2023
DRO211025A	ALI CCV Mix-200ug/mL					MARKER	5/31/2022
DRO211101A	OTP-4000 ug/mL DCM					SURR-CAL	9/30/2024

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818927	CCV_1101HP41	HC-8015-DRO-	CAL1		11/1/2021 8:13:4	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.00195173		0.002	0	0	0.000531	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818928	CCV_1101HP41	HC-8015-DRO-	CAL2		11/1/2021 9:04:4	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.04894254		0.05	0	0	0.000531	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818929	CCV_1101HP41	HC-8015-DRO-	CAL3		11/1/2021 9:55:1	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.2012884		0.2	0	0	0.000531	0.002	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818930	CCV_1101HP41	HC-8015-DRO-	CAL4		11/1/2021 10:45:	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.5057291		0.5	0	0	0.000531	0.002	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818931	CCV_1101HP41	HC-8015-DRO-	CAL5		11/1/2021 11:36:	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		1.027384		1	0	0	0.000531	0.002	0	103%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818932	CCV_1101HP41	HC-8015-DRO-	CAL1		11/2/2021 1:16:4	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		0.1539031		0.15	0	0	0.0782	0.3	50	103%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818933	CCV_1101HP41	HC-8015-DRO-	CAL2		11/2/2021 2:07:1	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		3.723079		3.75	0	0	0.0782	0.3	50	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818934	CCV_1101HP41	HC-8015-DRO-	CAL3		11/2/2021 2:57:2	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		14.98193		15	0	0	0.0782	0.3	50	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818935	CCV_1101HP41	HC-8015-DRO-	CAL4		11/2/2021 3:47:4	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		36.3038		37.5	0	0	0.0782	0.3	50	97%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818936	CCV_1101HP42	HC-8015-DRO-	CAL5		11/2/2021 4:38:0	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		50.71311		50	0	0	0.0782	0.3	50	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14818937	CCV_1101HP42	HC-8015-DRO-	ICV		11/2/2021 6:18:3	1	R369598		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		14.96337		15	0	0	0.0782	0.3	50	100%	80	120	0%	

Write Sequence	Insert Entries(Have the first cell for entries selecte							
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
:\org\HP4\DAT\HP4110121_b\1101HP4.07r	DCM-Baseline Check-V07	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.08r	CCV_1101HP408r, DRO ;1101HP4 , DRO211025A	G:\Org\HP4\methods\DC_8015-OA-L0.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.09r	DCM-Baseline Check-V09	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.10r	CCV_1101HP410r, CAL1 ;1101HP4 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.11r	CCV_1101HP411r, CAL2 ;1101HP4 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.12r	CCV_1101HP412r, CAL3 ;1101HP4 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14408)	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.13r	CCV_1101HP413r, CAL4 ;1101HP4 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14408)	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.14r	CCV_1101HP414r, CAL5 ;1101HP4 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14408)	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.15r	DCM-Baseline Check-V15	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.16r	CCV_1101HP416r, CAL1 ;1101HP4 , 150 ug per mL Diesel (10 uL of Cal3 + 990 uL DCM(14408),	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.17r	CCV_1101HP417r, CAL2 ;1101HP4 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.18r	CCV_1101HP418r, CAL3 ;1101HP4 , 15000 ug per mL Diesel (300 uL of DRO211012A + 700 uL DCM(14408)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.19r	CCV_1101HP419r, CAL4 ;1101HP4 , 37500ug per mL Diesel (750 uL of DRO211012A + 250 uL DCM(14408)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.20r	CCV_1101HP420r, CAL5 ;1101HP4 , 50000 ug per mL Diesel (200 uL of DRO211012A)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.21r	DCM-Baseline Check-V21	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0
:\org\HP4\DAT\HP4110121_b\1101HP4.22r	CCV_1101HP422r, Second Source ;1101HP4 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14408)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0

File Name: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Version: 1

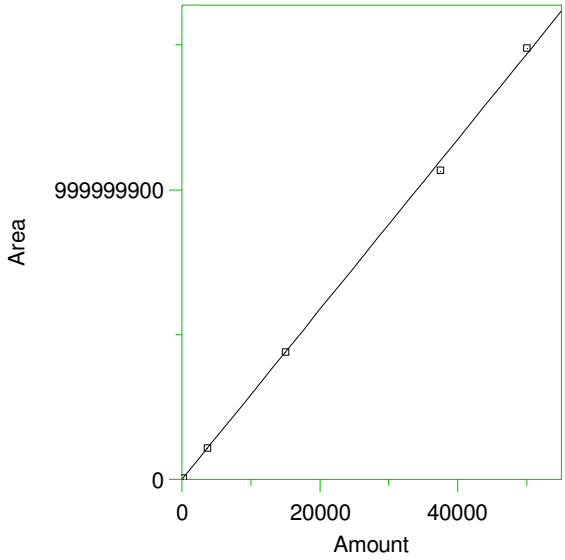
Creator: AMN
Description: 8015C-DRO. New ICal Per 1102HP4 (2021)-2 uL Inj.; COD added using OTP RFs
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 500
Reference peak area reject threshold: 500
Amount units: nanograms
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 DRO Range Start



Expected retention time:	6.79 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

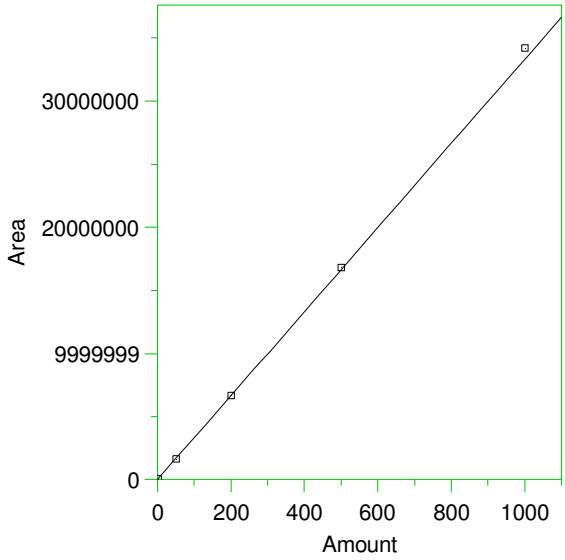
Y = 29373.28 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9989712
Average error:	1.611%
Average CF:	29373.28
RSD:	2.208%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4520637	30137.58	2.602	Manual	11/2/2021 7:52:13 AM
2	3750	1.09359E+08	29162.4	-0.718	Manual	11/2/2021 7:52:33 AM
3	15000	4.400683E+08	29337.89	-0.120	Manual	11/2/2021 7:52:42 AM
4	37500	1.066362E+09	28436.32	-3.190	Manual	11/2/2021 7:52:54 AM
5	50000	1.48961E+09	29792.2	1.426	Manual	11/2/2021 7:53:06 AM

2 *o-Terphenyl



Expected retention time: 12.87 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

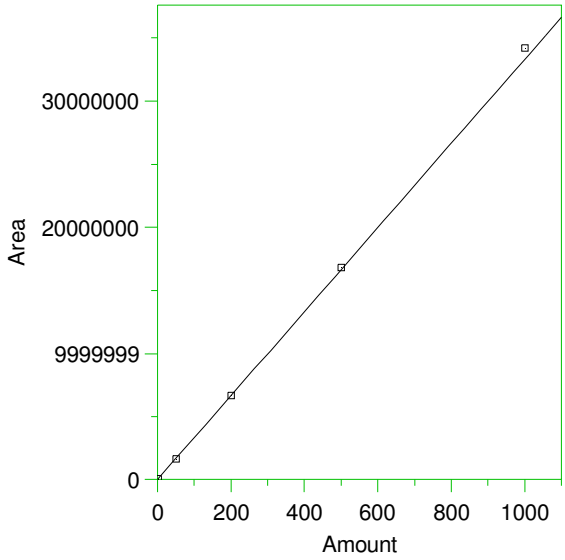
Single peak quantification by area

Y = 33319.7 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.998904
Average error: 1.811%
Average CF: 33319.7
RSD: 2.209%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	65030.99	32515.49	-2.414	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0010.BND	11/2/2021 7:51:41 AM
2	50	1630751	32615.02	-2.115	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0011.BND	11/2/2021 7:51:35 AM
3	200	6706871	33534.36	0.644	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0012.BND	11/2/2021 7:51:30 AM
4	500	1.685074E+07	33701.48	1.146	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0013.BND	11/2/2021 7:50:16 AM
5	1000	3.423214E+07	34232.14	2.738	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0014.BND	11/2/2021 7:50:10 AM

3 *1-Chlorooctadecane



Expected retention time:	13.68 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

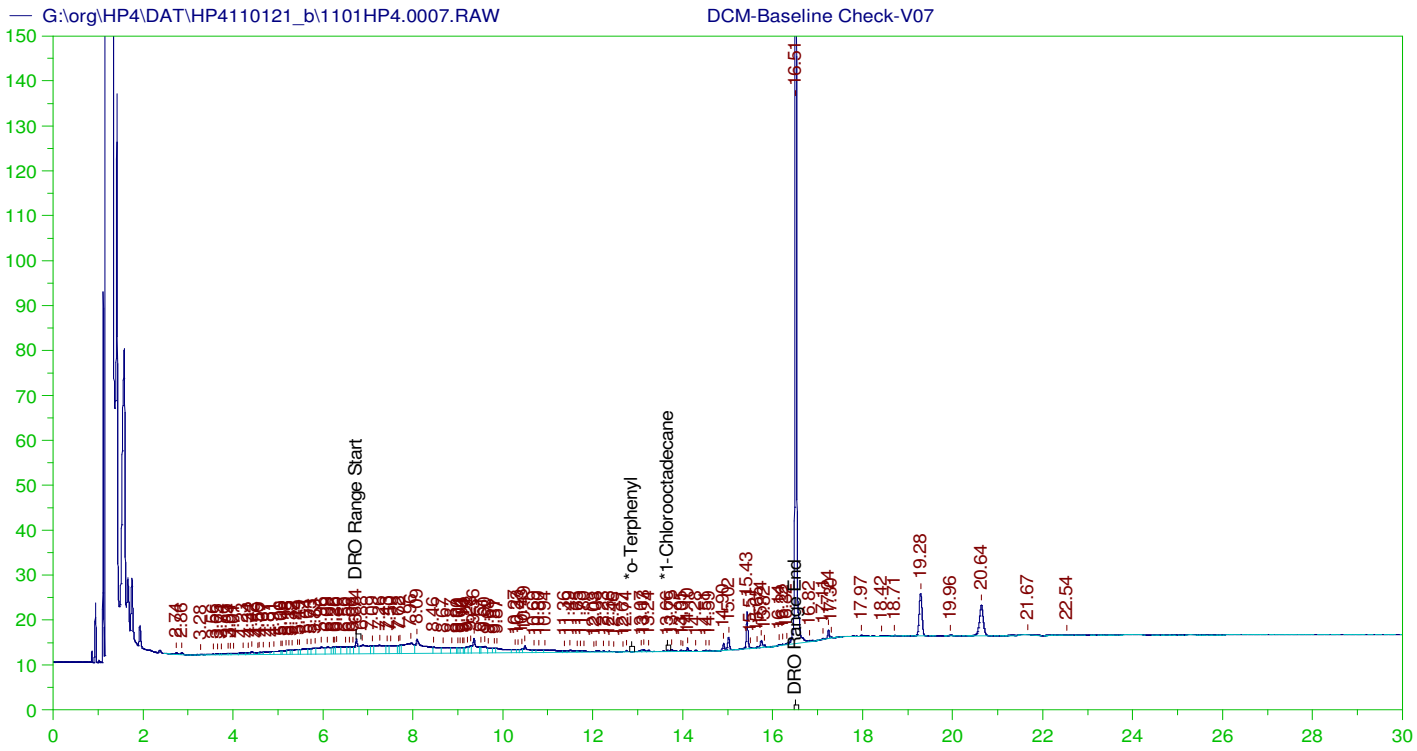
Single peak quantification by area

Y = 33319.7 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.998904
Average error:	1.811%
Average CF:	33319.7
RSD:	2.209%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	65030.99	32515.49	-2.414	Manual	11/2/2021 7:51:46 AM
2	50	1630751	32615.02	-2.115	Manual	11/2/2021 7:51:47 AM
3	200	6706871	33534.36	0.644	Manual	11/2/2021 7:51:49 AM
4	500	1.685074E+07	33701.48	1.146	Manual	11/2/2021 7:51:51 AM
5	1000	3.423214E+07	34232.14	2.738	Manual	11/2/2021 7:51:53 AM



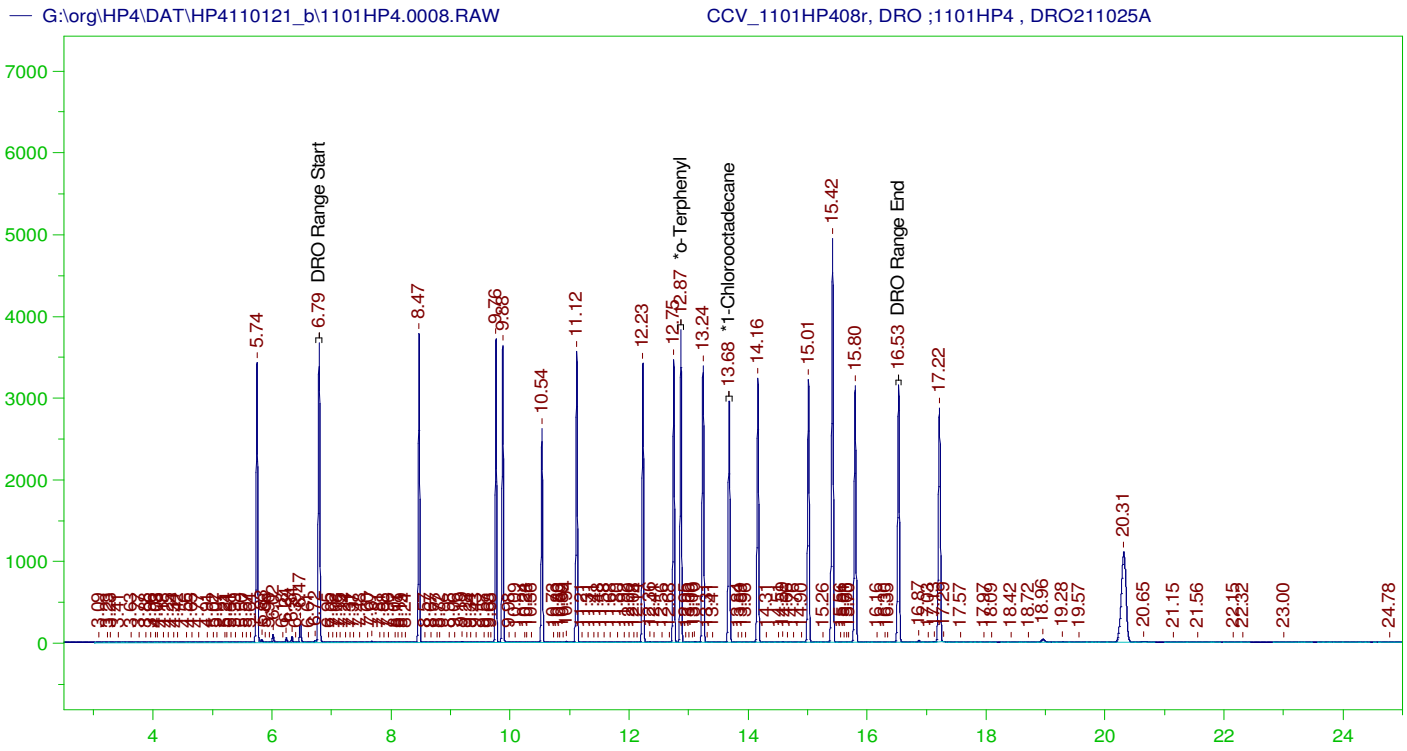
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V07
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0007.RAW
Date & Time Acquired: 11/1/2021 5:37:56 PM
Method File: G:\Org\HP4\methods\DR_8015-OA-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.966	200.	.	. -
*1-Chlorooctadecane	13.659	200.	.028	.01 -

DRO Area:1037666 DRO Amount: 35.32688
TEH Area:1315488 TEH Amount: 44.78518



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1101HP408r, DRO ;1101HP4 , DRO211025A
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0008.RAW
Date & Time Acquired: 11/1/2021 6:29:58 PM
Method File: G:\Org\HP4\methods\DC_8015-OA-L0.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

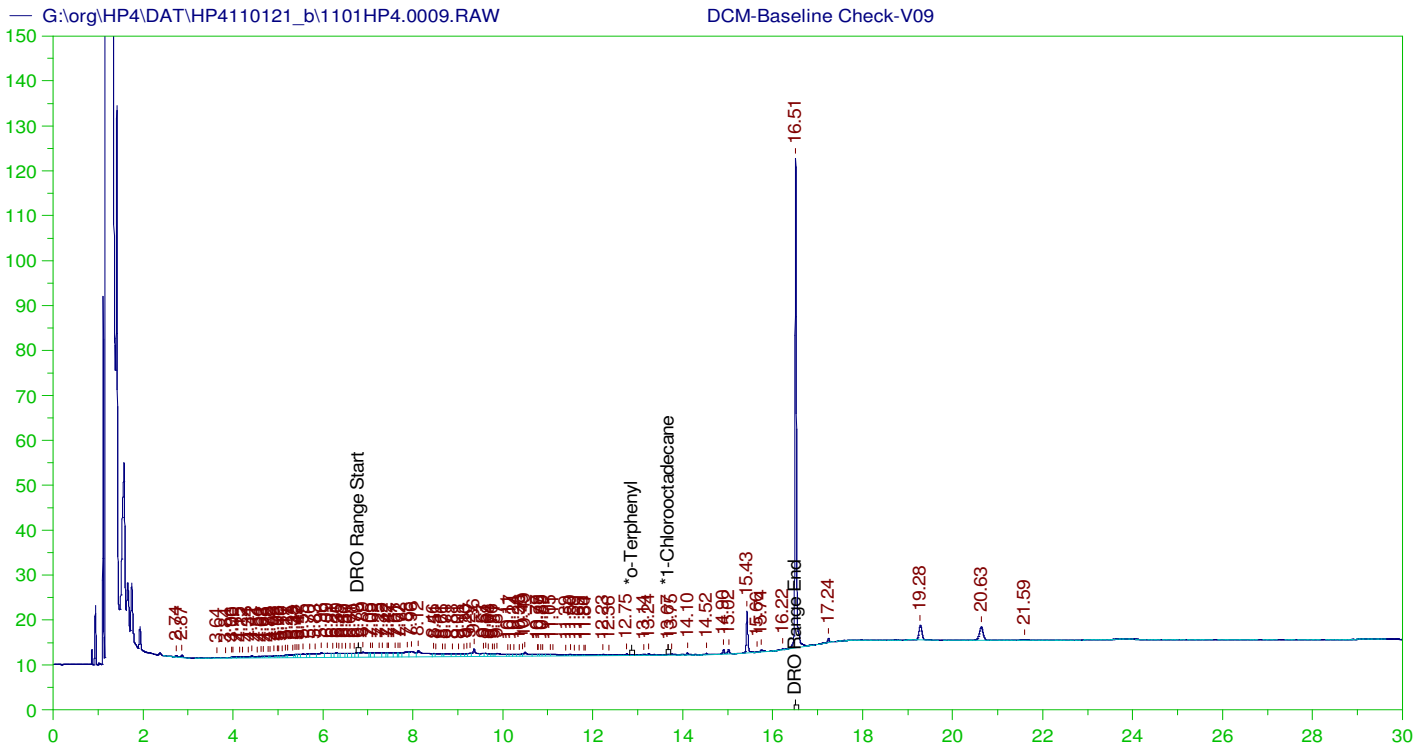
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.871	200.	197.197	98.6	-
*1-Chlorooctadecane	13.68	200.	162.692	81.35	-

DRO Area:8.91221E+07 DRO Amount: 3034.122
TEH Area:1.09099E+08 TEH Amount: 3714.228

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0008.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	3714.23	24.76	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.871	200.	197.197	98.6	85-115
*1-Chlorooctadecane	13.68	200.	162.692	81.35	85-115



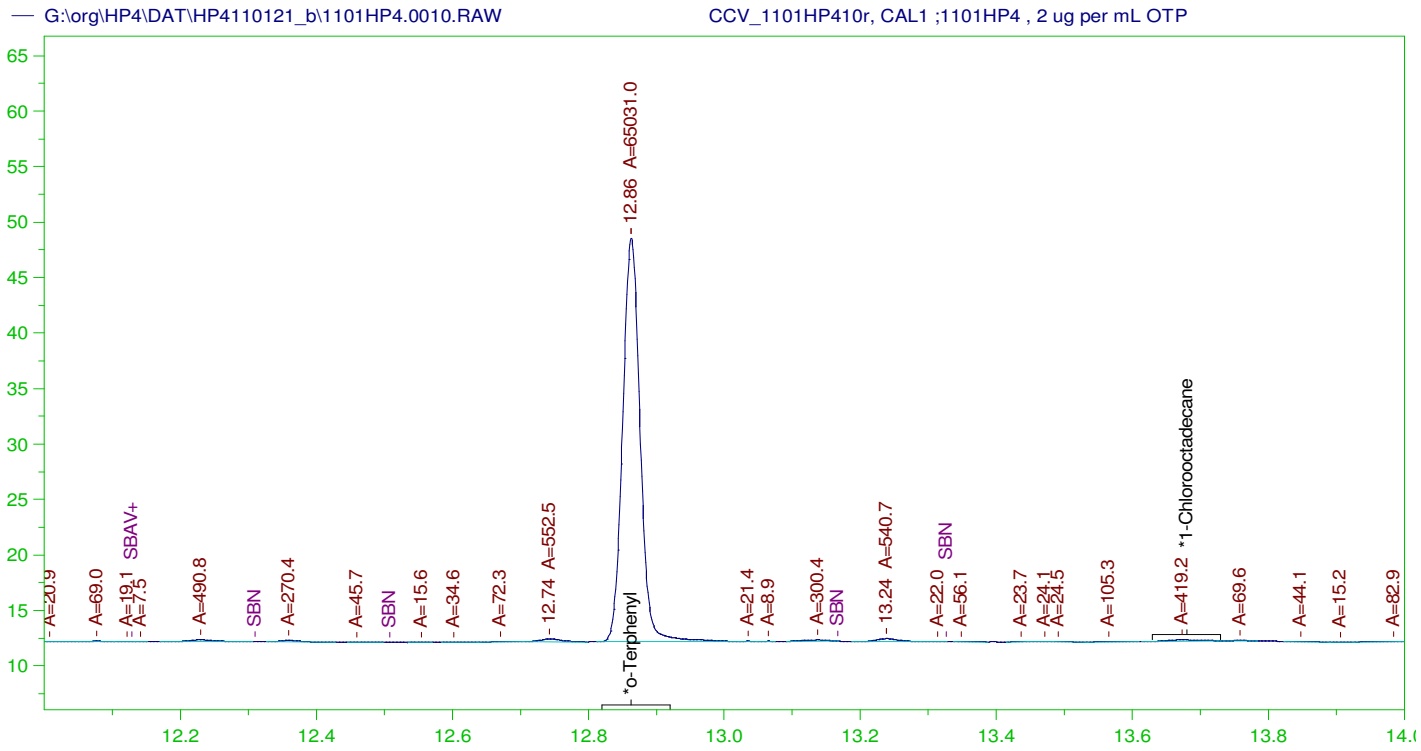
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V09
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0009.RAW
Date & Time Acquired: 11/1/2021 7:21:52 PM
Method File: G:\Org\HP4\methods\DR_8015-OA-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.549	200.	.	-
*1-Chlorooctadecane	13.667	200.	.027	.01 -

DRO Area:494658.3 DRO Amount: 16.84042
TEH Area:640048.8 TEH Amount: 21.79017



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP410r, CAL1 ;1101HP4 , 2 ug per mL OTP
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0010.RAW
Date & Time Acquired: 11/1/2021 8:13:42 PM
Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

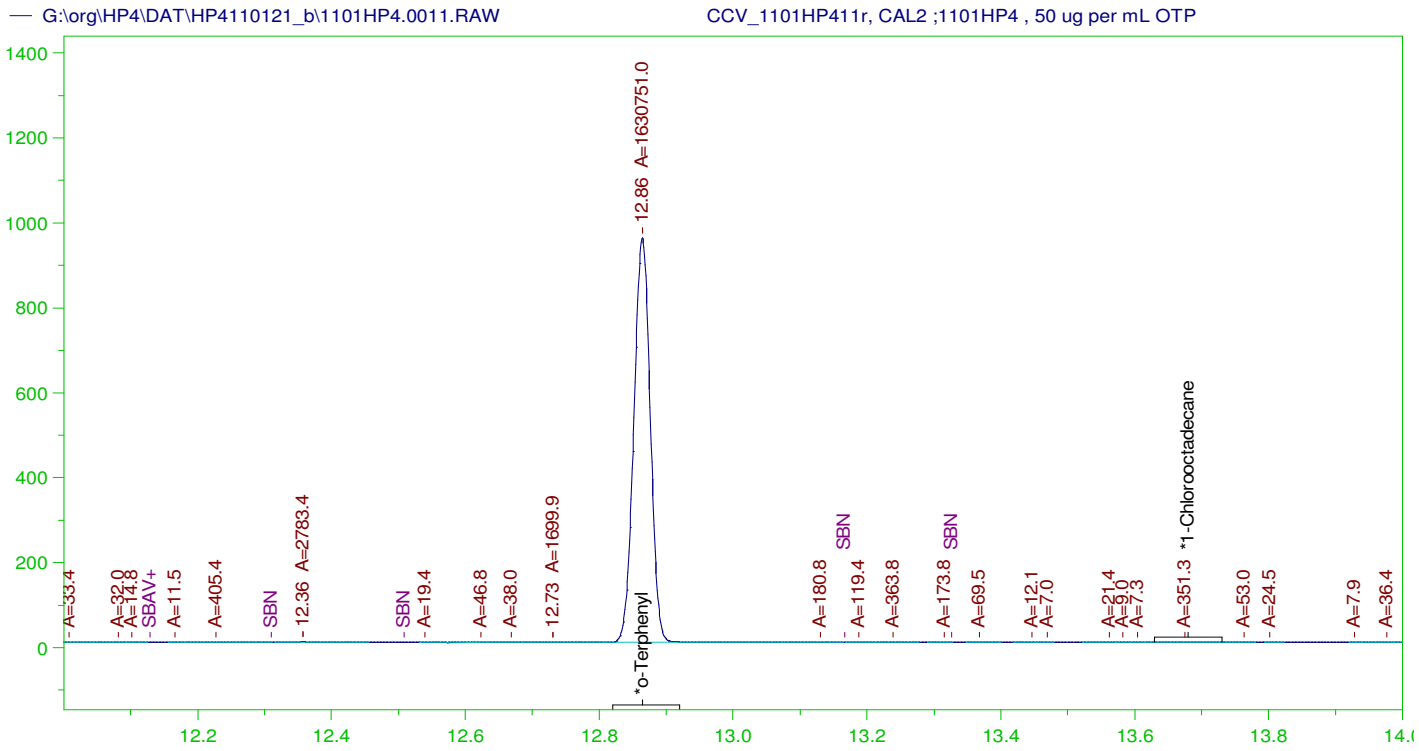
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.863	200.	1.952	.98	-
*1-Chlorooctadecane	29.971	200.	.	.	-

DRO Area:246716.6 DRO Amount: 8.399357
TEH Area:346478.1 TEH Amount: 11.79569

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0010.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	.	.	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.863	200.	1.952	.98	85-115
*1-Chlorooctadecane	29.971	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP411r, CAL2 ;1101HP4 , 50 ug per mL OTP
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0011.RAW
Date & Time Acquired: 11/1/2021 9:04:46 PM
Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

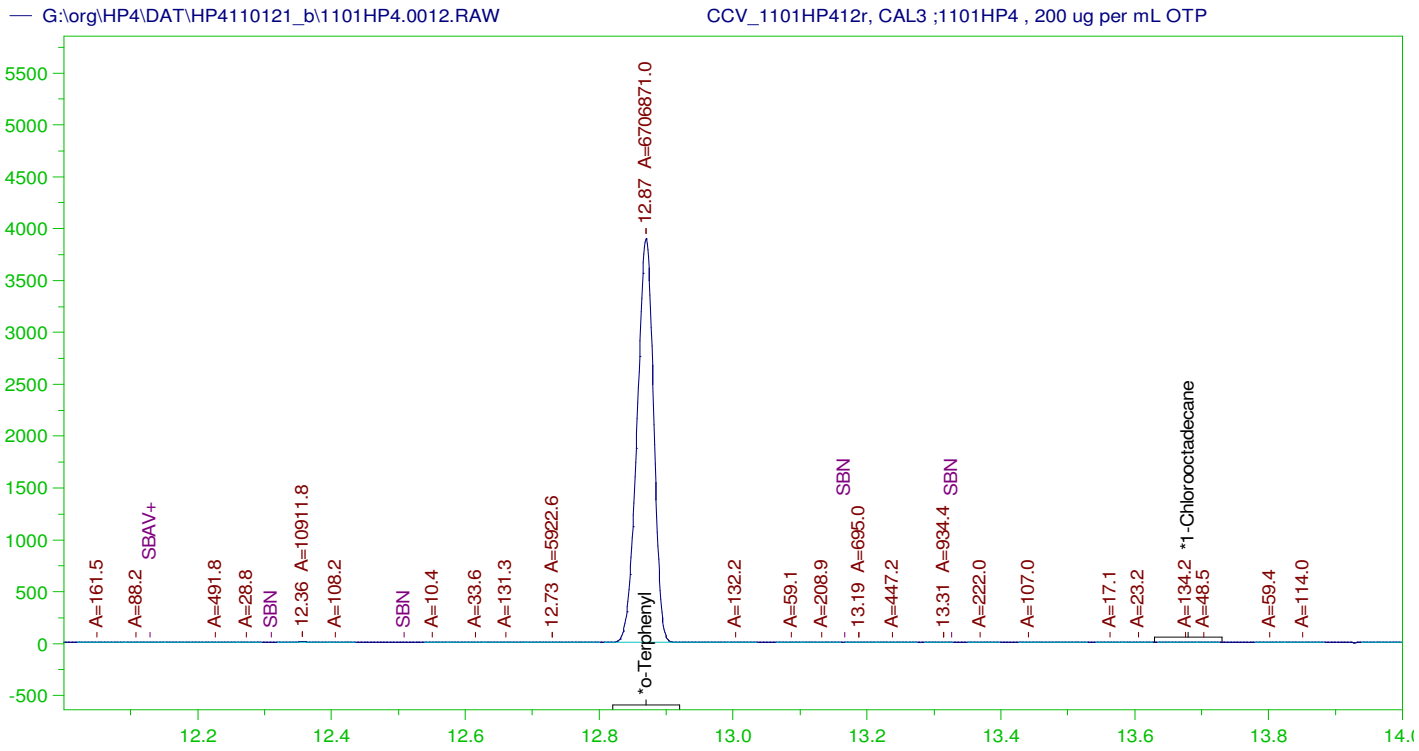
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.864	200.	48.943	24.47	-
*1-Chlorooctadecane	29.962	200.	.	.	-

DRO Area:198520.5 DRO Amount: 6.75854
TEH Area:236761.3 TEH Amount: 8.060432

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0011.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	.	.	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.864	200.	48.943	24.47	85-115
*1-Chlorooctadecane	29.962	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP412r, CAL3 ;1101HP4 , 200 ug per mL OTP
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0012.RAW
Date & Time Acquired: 11/1/2021 9:55:15 PM
Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

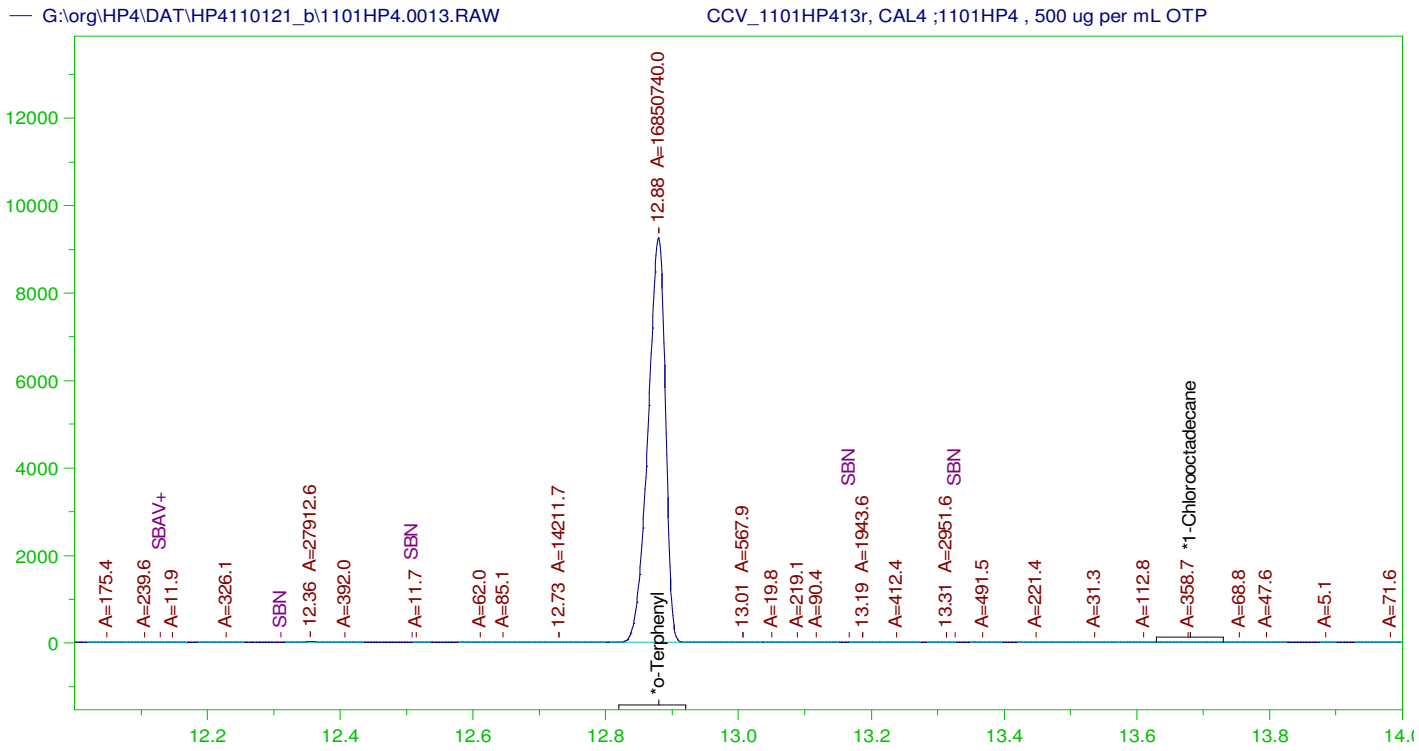
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.87	200.	201.289	100.64	-
*1-Chlorooctadecane	29.944	200.	.	.	-

DRO Area:204842.1 DRO Amount: 6.973756
TEH Area:260037.3 TEH Amount: 8.852851

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0012.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	.	.	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.87	200.	201.289	100.64	85-115
*1-Chlorooctadecane	29.944	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1101HP413r, CAL4 ;1101HP4 , 500 ug per mL OTP
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0013.RAW
Date & Time Acquired: 11/1/2021 10:45:33 PM
Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

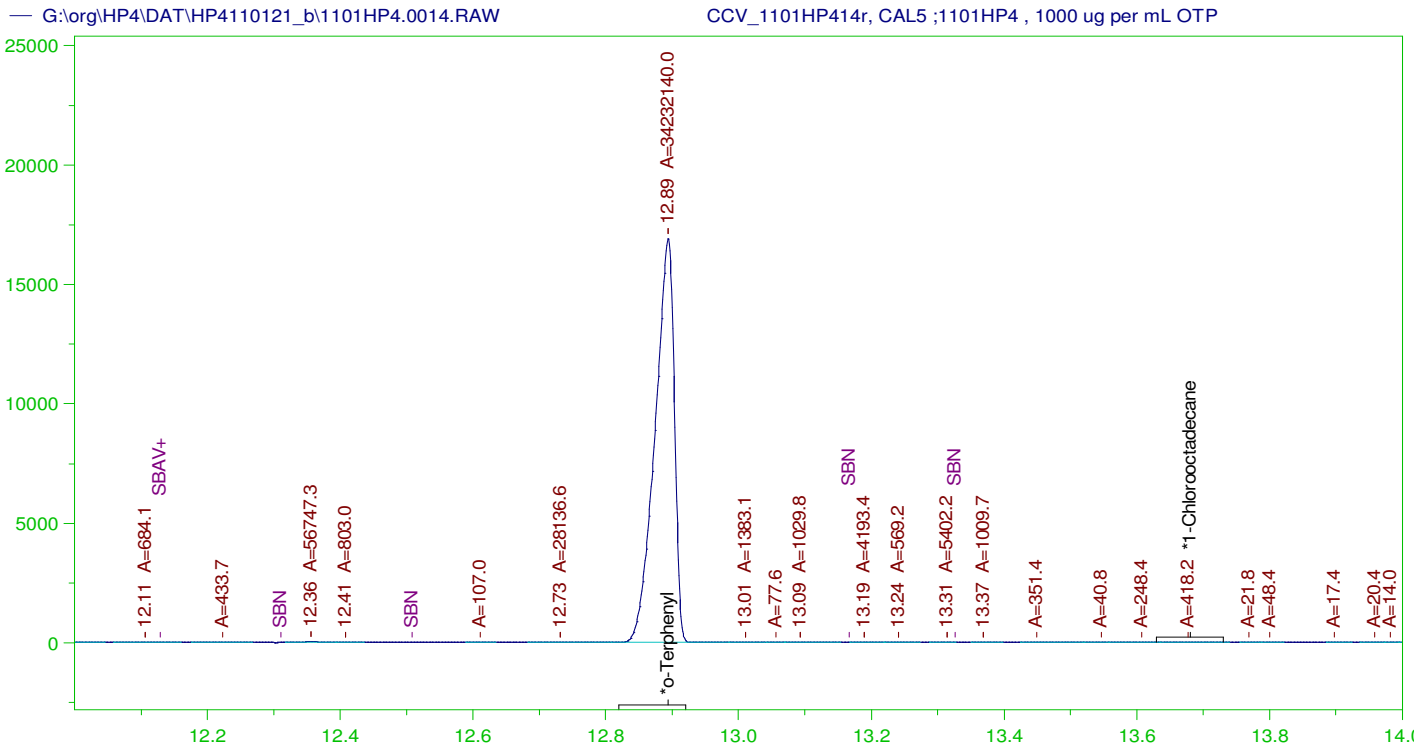
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.879	200.	505.729	252.86	-
*1-Chlorooctadecane	29.986	200.	.	.	-

DRO Area:248934.2 DRO Amount: 8.474853
TEH Area:316561.3 TEH Amount: 10.77719

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0013.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	.	.	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.879	200.	505.729	252.86	85-115
*1-Chlorooctadecane	29.986	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP414r, CAL5 ;1101HP4 , 1000 ug per mL OTP
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0014.RAW
Date & Time Acquired: 11/1/2021 11:36:02 PM
Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

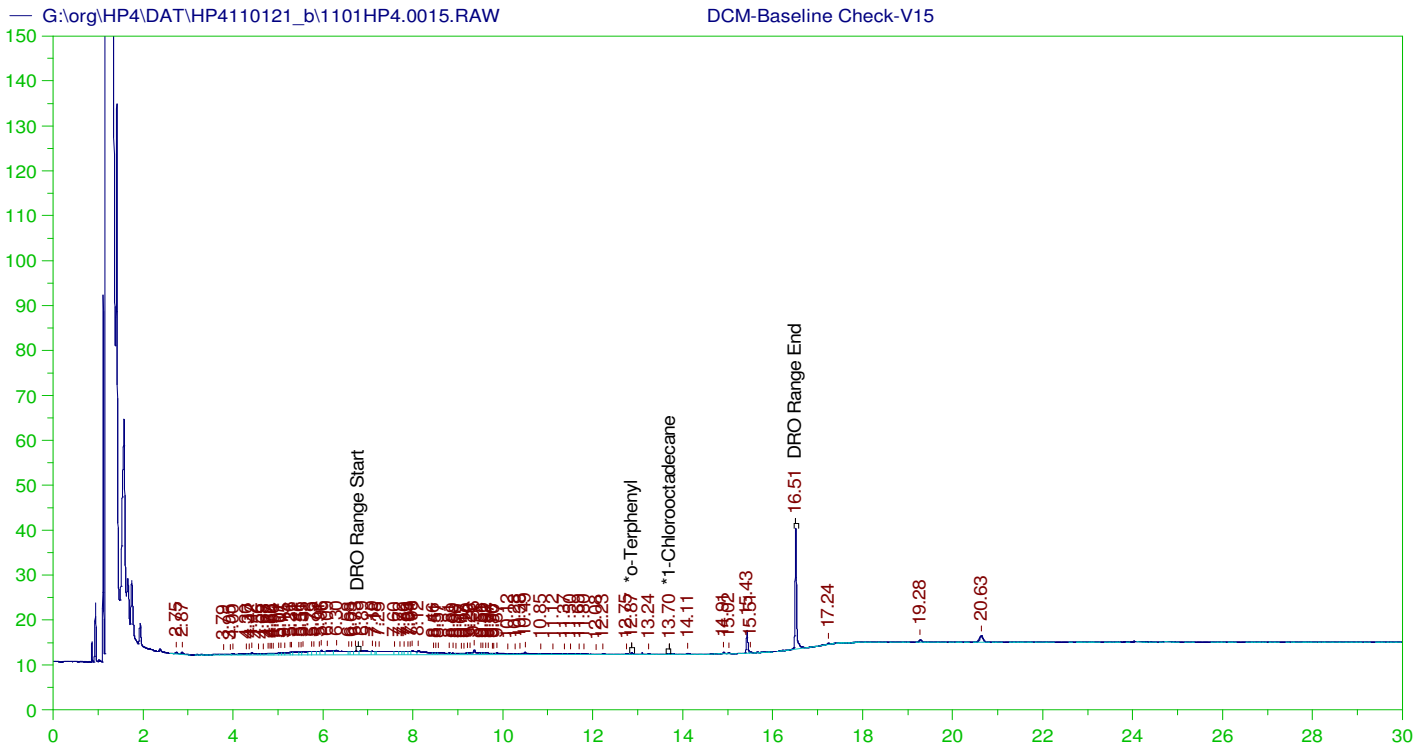
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.894	200.	1027.384	513.69	-
*1-Chlorooctadecane	29.945	200.	.	.	-

DRO Area:283897.7 DRO Amount: 9.66517
TEH Area:329575.5 TEH Amount: 11.22025

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0014.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	.	.	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.894	200.	1027.384	513.69	85-115
*1-Chlorooctadecane	29.945	200.	.	.	85-115



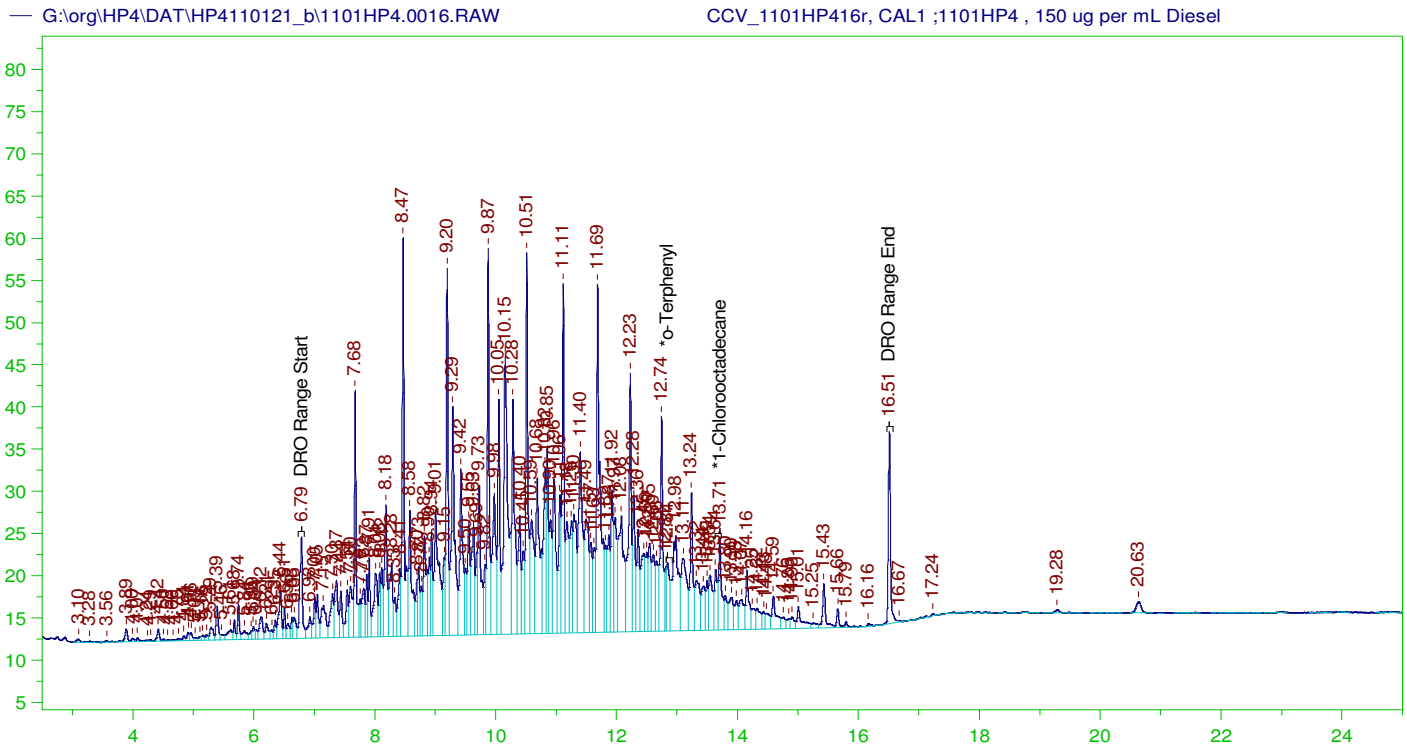
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V15
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0015.RAW
Date & Time Acquired: 11/2/2021 12:26:19 AM
Method File: G:\Org\HP4\methods\DR_8015-OA-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.866	200.	.046	.02	-
*1-Chlorooctadecane	13.702	200.	.016	.01	-

DRO Area:216198.9 DRO Amount: 7.360394
TEH Area:333132.8 TEH Amount: 11.34136



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP416r, CAL1 ;1101HP4 , 150 ug per mL Diesel
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0016.RAW
Date & Time Acquired: 11/2/2021 1:16:49 AM
Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

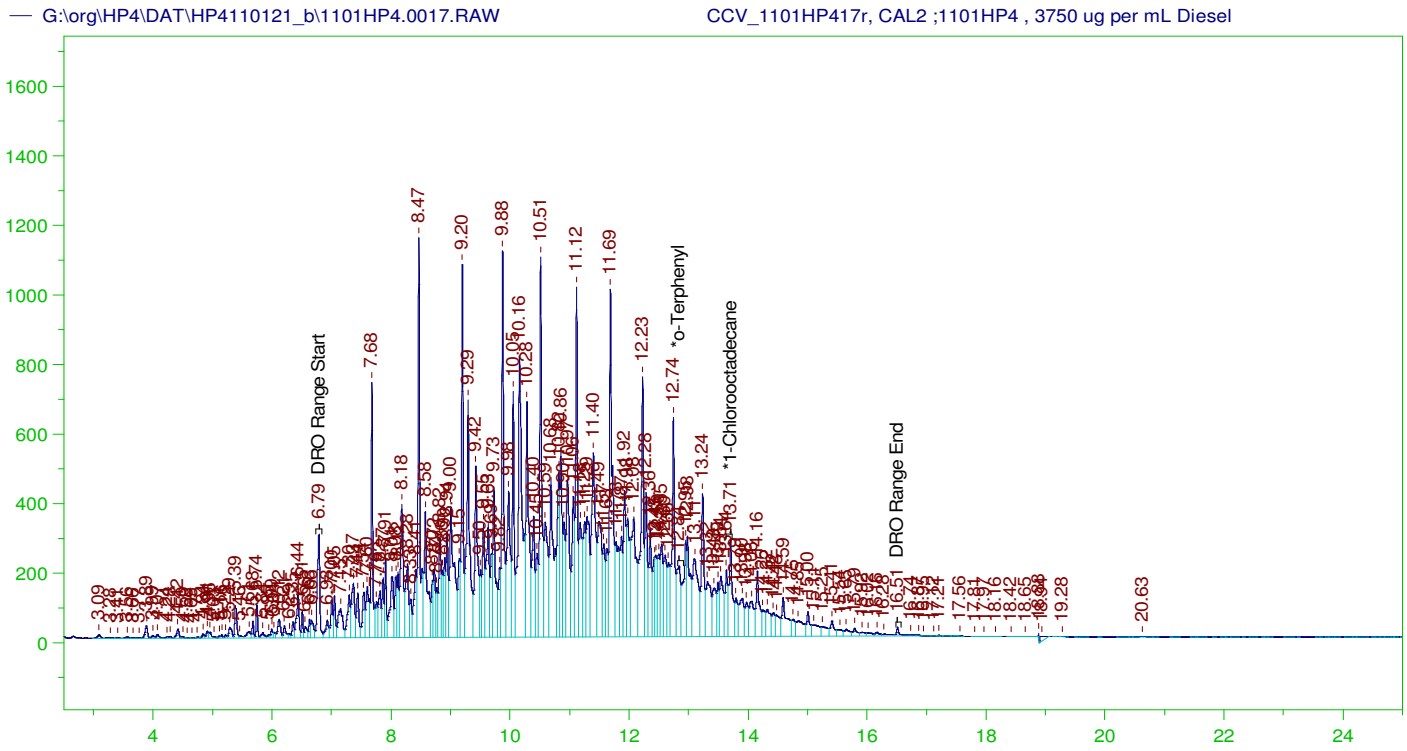
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.841	200.	.842	.42	-
*1-Chlorooctadecane	13.706	200.	1.092	.55	-

DRO Area:4341542 DRO Amount: 147.8058
TEH Area:4520637 TEH Amount: 153.903

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0016.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	153.9	1.03	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.841	200.	.842	.42	85-115
*1-Chlorooctadecane	13.706	200.	1.092	.55	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP417r, CAL2 ;1101HP4 , 3750 ug per mL Diesel
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0017.RAW
Date & Time Acquired: 11/2/2021 2:07:13 AM
Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

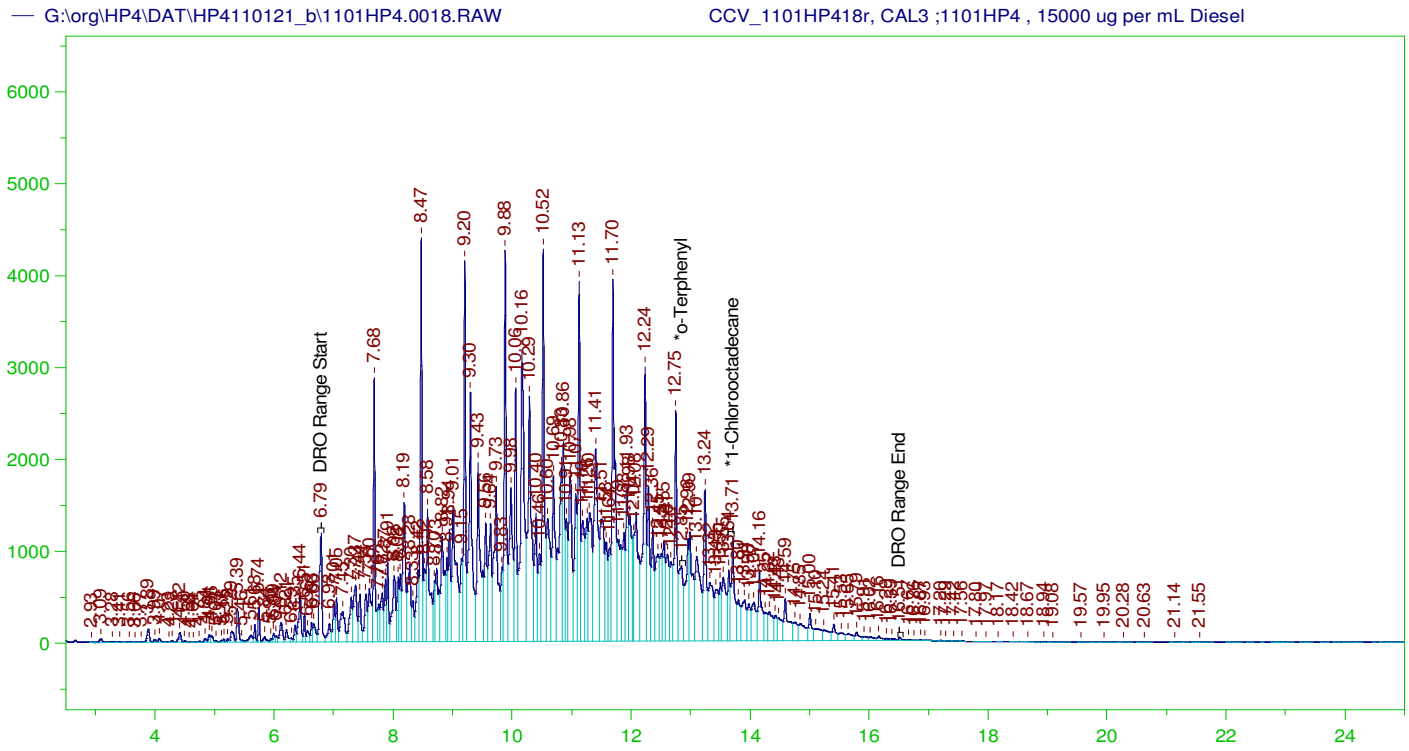
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.837	200.	28.641	14.32	-
*1-Chlorooctadecane	13.705	200.	33.114	16.56	-

DRO Area:1.065299E+08 DRO Amount: 3626.763
TEH Area:1.09359E+08 TEH Amount: 3723.079

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0017.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	3723.08	24.82	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.837	200.	28.641	14.32	85-115
*1-Chlorooctadecane	13.705	200.	33.114	16.56	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP418r, CAL3 ;1101HP4 , 15000 ug per mL Diesel
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0018.RAW
Date & Time Acquired: 11/2/2021 2:57:28 AM
Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

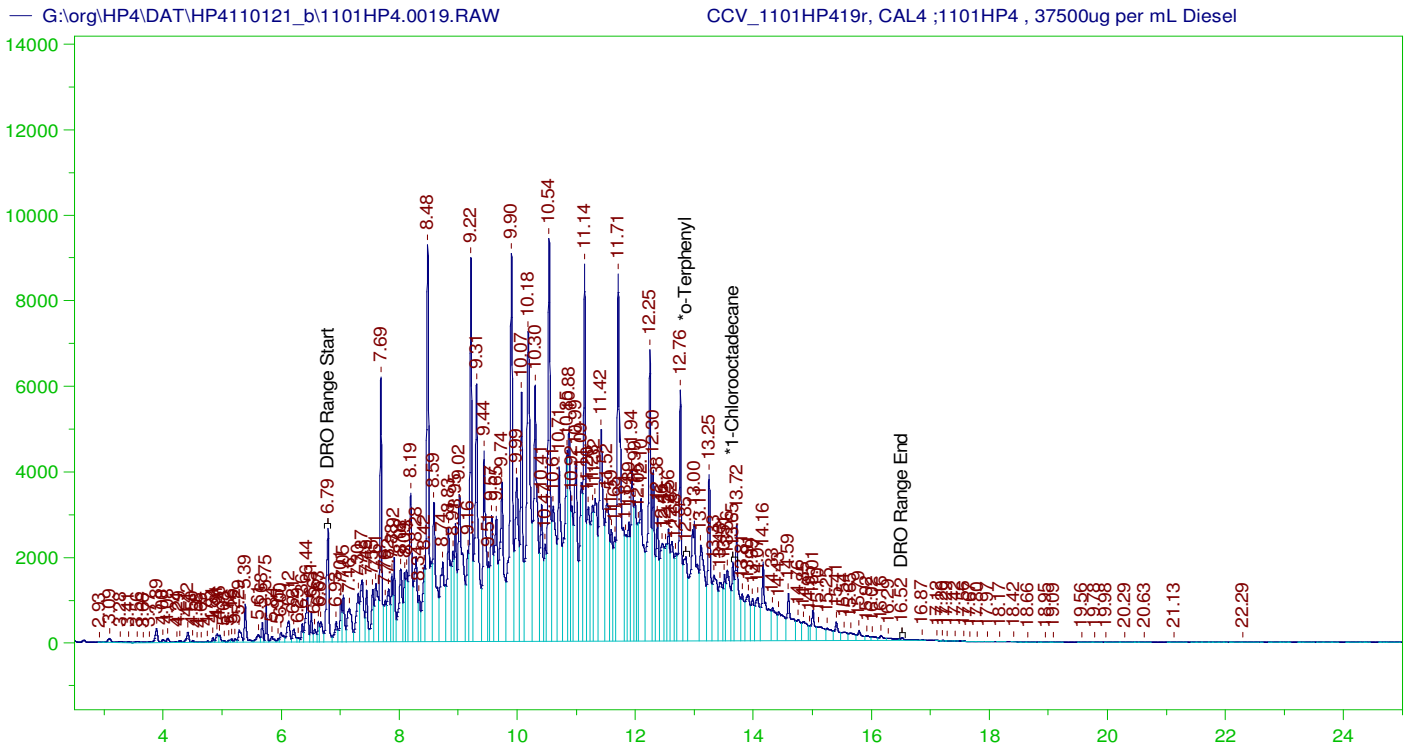
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.846	200.	119.117	59.56	-
*1-Chlorooctadecane	13.709	200.	132.401	66.2	-

DRO Area:4.291878E+08 DRO Amount: 14611.51
TEH Area:4.400683E+08 TEH Amount: 14981.93

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0018.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14981.93	99.88	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.846	200.	119.117	59.56	85-115
*1-Chlorooctadecane	13.709	200.	132.401	66.2	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP419r, CAL4 ;1101HP4 , 37500ug per mL Diesel
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0019.RAW
Date & Time Acquired: 11/2/2021 3:47:46 AM
Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

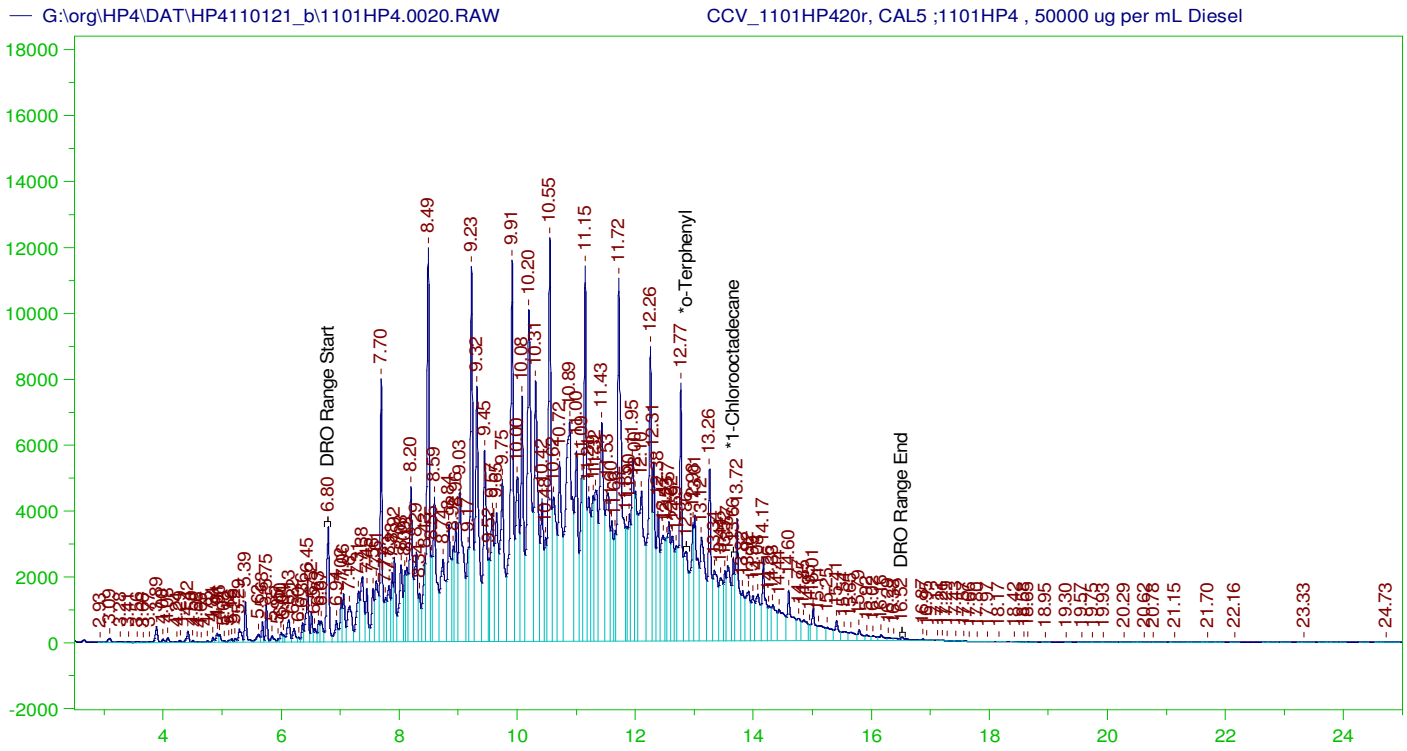
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.855	200.	279.085	139.54	-
*1-Chlorooctadecane	13.653	200.	147.666	73.83	-

DRO Area:1.040405E+09 DRO Amount: 35420.13
TEH Area:1.066362E+09 TEH Amount: 36303.8

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0019.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	36303.8	242.03	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.855	200.	279.085	139.54	85-115
*1-Chlorooctadecane	13.653	200.	147.666	73.83	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP420r, CAL5 ;1101HP4 , 50000 ug per mL Diesel
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0020.RAW
Date & Time Acquired: 11/2/2021 4:38:01 AM
Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

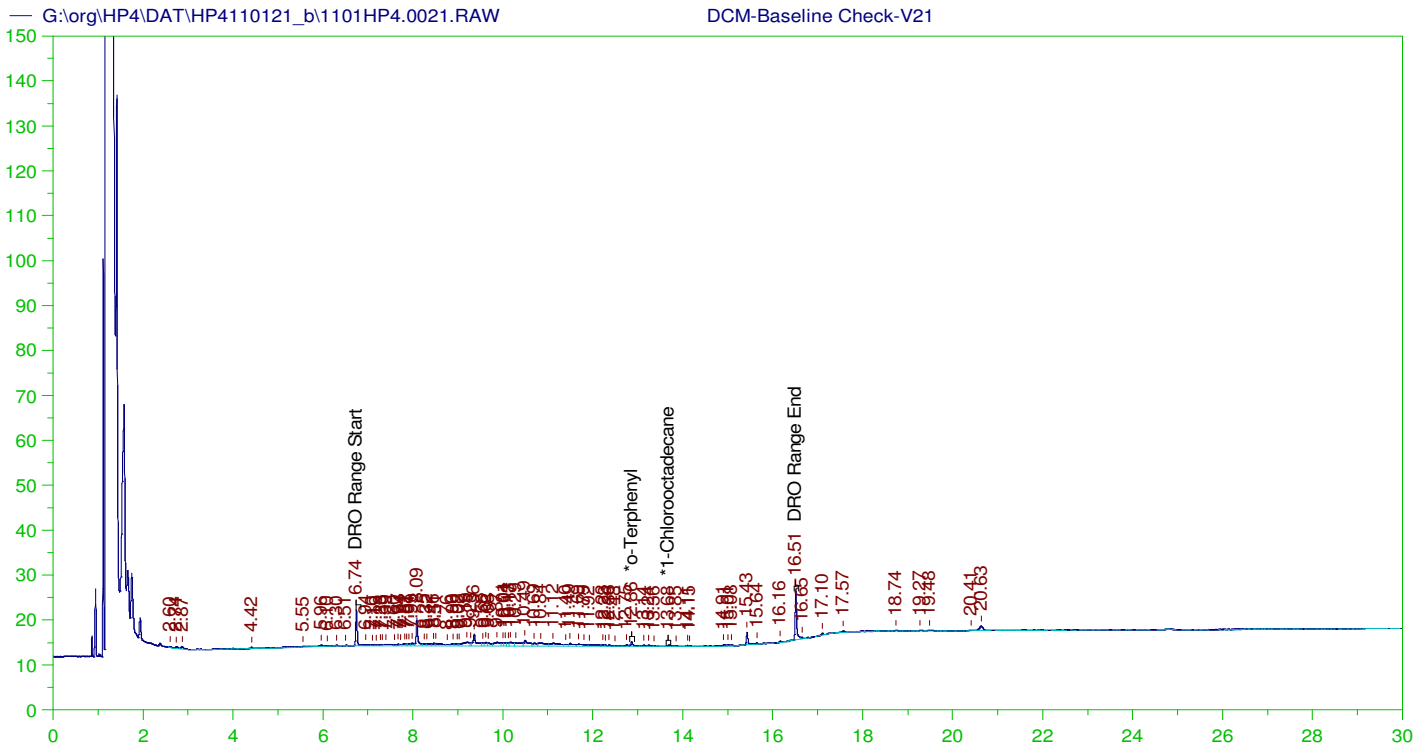
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.862	200.	408.713	204.36	-
*1-Chlorooctadecane	13.661	200.	204.074	102.04	-

DRO Area:1.453258E+09 DRO Amount: 49475.51
TEH Area:1.48961E+09 TEH Amount: 50713.11

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0020.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	50713.11	338.09	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.862	200.	408.713	204.36	85-115
*1-Chlorooctadecane	13.661	200.	204.074	102.04	85-115



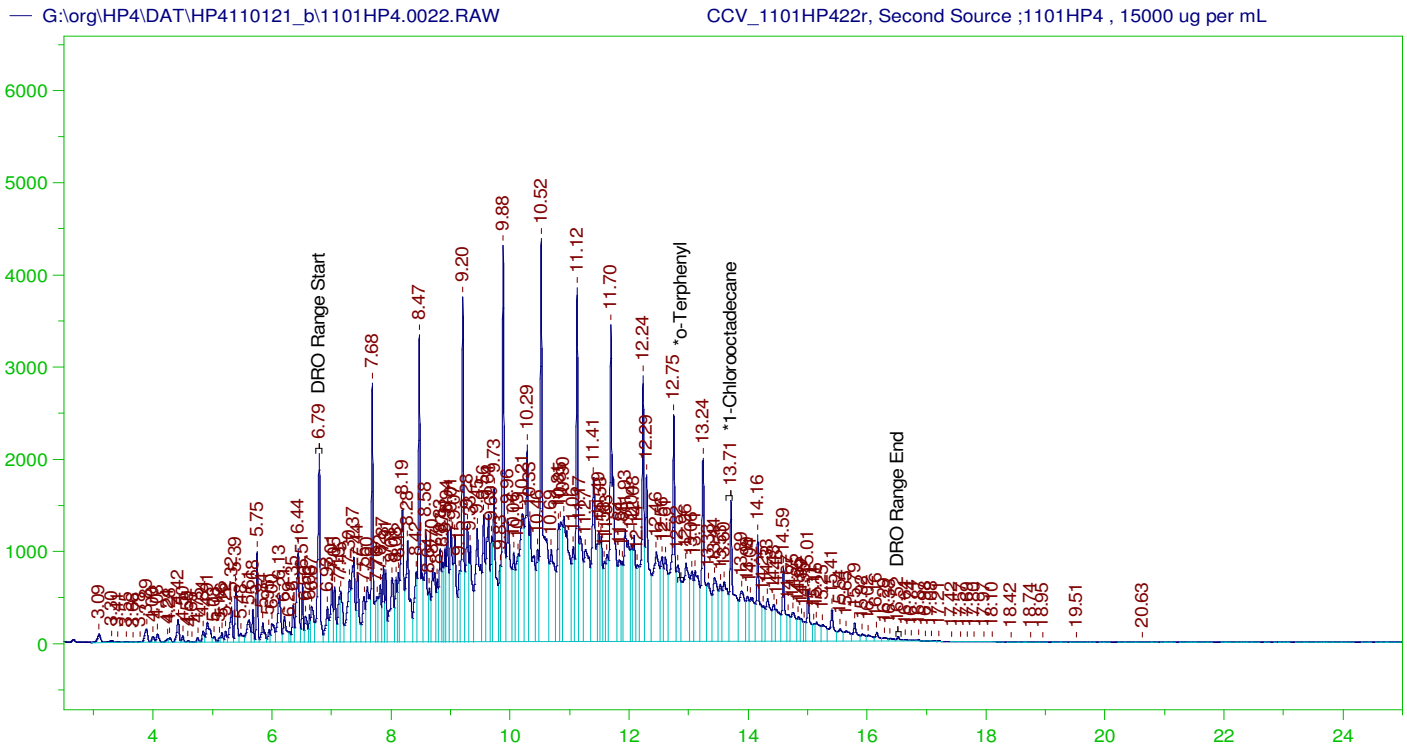
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V21
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0021.RAW
Date & Time Acquired: 11/2/2021 5:28:21 AM
Method File: G:\Org\HP4\methods\DR_8015-OA-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.865	200.	.126	.06	-
*1-Chlorooctadecane	13.677	200.	.038	.02	-

DRO Area:238253.6 DRO Amount: 8.111236
TEH Area:273352.9 TEH Amount: 9.306175



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP422r, Second Source ;1101HP4 , 15000 ug per mL
Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0022.RAW
Date & Time Acquired: 11/2/2021 6:18:32 AM
Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	29.896	200.	.	.	-
*1-Chlorooctadecane	13.712	200.	201.891	100.95	-

DRO Area:4.14403E+08 DRO Amount: 14108.16
TEH Area:4.395233E+08 TEH Amount: 14963.37

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0022.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14963.37	99.76	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	29.896	200.	.	.	85-115
*1-Chlorooctadecane	13.712	200.	201.891	100.95	85-115

Write Sequence | Insert Entries(Have the first cell for entries selecte

Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
G:\org\HP4\DAT\HP4110121_b\1101HP4.07r	DCM-Baseline Check-V07	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0	No Integration
G:\org\HP4\DAT\HP4110121_b\1101HP4.08r	CCV_1101HP408r, DRO ;1101HP4 , DRO211025A	G:\Org\HP4\methods\DC_8015-OA-L0.met	1	1	1	1	0	No Integration
G:\org\HP4\DAT\HP4110121_b\1101HP4.09r	DCM-Baseline Check-V09	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0	No Integration
G:\org\HP4\DAT\HP4110121_b\1101HP4.10r	CCV_1101HP410r, CAL1 ;1101HP4 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
G:\org\HP4\DAT\HP4110121_b\1101HP4.11r	CCV_1101HP411r, CAL2 ;1101HP4 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
G:\org\HP4\DAT\HP4110121_b\1101HP4.12r	CCV_1101HP412r, CAL3 ;1101HP4 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14408)	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
G:\org\HP4\DAT\HP4110121_b\1101HP4.13r	CCV_1101HP413r, CAL4 ;1101HP4 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14408)	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
G:\org\HP4\DAT\HP4110121_b\1101HP4.14r	CCV_1101HP414r, CAL5 ;1101HP4 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14408)	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
G:\org\HP4\DAT\HP4110121_b\1101HP4.15r	DCM-Baseline Check-V15	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0	No Integration
G:\org\HP4\DAT\HP4110121_b\1101HP4.16r	CCV_1101HP416r, CAL1 ;1101HP4 , 150 ug per mL Diesel (10 uL of Cal3 + 990 uL DCM(14408),	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1
G:\org\HP4\DAT\HP4110121_b\1101HP4.17r	CCV_1101HP417r, CAL2 ;1101HP4 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1
G:\org\HP4\DAT\HP4110121_b\1101HP4.18r	CCV_1101HP418r, CAL3 ;1101HP4 , 15000 ug per mL Diesel (300 uL of DRO211012A + 700 uL DCM(14408)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1
G:\org\HP4\DAT\HP4110121_b\1101HP4.19r	CCV_1101HP419r, CAL4 ;1101HP4 , 37500ug per mL Diesel (750 uL of DRO211012A + 250 uL DCM(14408)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1
G:\org\HP4\DAT\HP4110121_b\1101HP4.20r	CCV_1101HP420r, CAL5 ;1101HP4 , 50000 ug per mL Diesel (200 uL of DRO211012A)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1
G:\org\HP4\DAT\HP4110121_b\1101HP4.21r	DCM-Baseline Check-V21	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0	No Integration
G:\org\HP4\DAT\HP4110121_b\1101HP4.22r	CCV_1101HP422r, Second Source ;1101HP4 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14408)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.17 15:04:47 -07:00

PREP BATCH REPORT

Prep Code: **HC-3520-DRO** Technician: **Jillian L Bostwick** Prep Start Date: **1/10/2022 12:23:22 P**

Prep Batch **162824** Prep Temp **NA °C** Batch Units: **ML** Prep End Date: **1/11/2022 2:30:00 PM**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-162824			1000	0	0	1.00	0.001		1/10/2022	1/11/2022
Start time: 12:47PM, 1/10/2022. End time: 1/11/2022 at 7:50 AM. SGT by ALN on 1/12/2022.										
LCS-162824			1000	0	0	1.00	0.001		1/10/2022	1/11/2022
IDOC for ALN. SGT of remainder of sample was done by ALN on 1/12/2022.										
LCS-RRO-162824			1000	0	0	1.00	0.001		1/10/2022	1/11/2022
All bottles were completely used, defaced and disposed of on 01/10/2022. SSGT of remainder of sample was done by ALN on 1/13/2022.										
B22010260-001D	Ground Water	2	1010	0	0	1.00	0.00099		1/10/2022	1/11/2022
Bottle 1/2: clear, no sediment, on solvent at 11:53AM. SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010262-001D	Ground Water	2	1030	0	0	1.00	0.000971		1/10/2022	1/11/2022
Bottle 1/2: clear, light sediment, on solvent at 11:56AM. SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010338-001D	Drinking Water	2	1050	0	0	1.00	0.000952		1/10/2022	1/11/2022
Bottle 1/2: clear, no sediment, on solvent at 11:59AM.SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010361-001D	Ground Water	2	1050	0	0	1.00	0.000952		1/10/2022	1/11/2022
Bottle 1/2: clear, no sediment, on solvent at 12:01PM. SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010366-001D	Ground Water	2	1010	0	0	1.00	0.00099		1/10/2022	1/11/2022
Bottle 1/2: clear, no sediment, on solvent at 12:04PM. SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010366-002B	Ground Water	2	1020	0	0	1.00	0.00098		1/10/2022	1/11/2022
Bottle 1/2: clear, no sediment, on solvent at 12:08PM. SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010403-001D	Ground Water	2	1030	0	0	1.00	0.000971		1/10/2022	1/11/2022
Bottle 1/2: clear, no sediment, on solvent at 12:11PM.										
B22010406-001D	Ground Water	2	1030	0	0	1.00	0.000971		1/10/2022	1/11/2022
Bottle 1/2: clear, no sediment, on solvent at 12:15PM. SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010369-001D	Ground Water	2	1020	0	0	1.00	0.00098		1/10/2022	1/11/2022
Bottle 1/6: clear, light sediment, on solvent at 1:47PM. SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010369-001DMS	Ground Water	2	1030	0	0	1.00	0.000971		1/10/2022	1/11/2022
Bottle 2/6: clear, light sediment, on solvent at 1:44PM. SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010369-001DMS-RRO	Ground Water	2	1020	0	0	1.00	0.00098		1/10/2022	1/11/2022
Bottle 3/6: clear, light sediment, on solvent at 1:40PM. SGT of remainder of sample was done by ALN on 1/13/2022.										

Number	Reagent Name	Exp Date	
11	Carbon Filter Water	1/1/2023	
13379	PTFE Boiling Stones 27463755	12/30/2025	
14206	pH-indicator Strips 0-14 HC160347	8/26/2026	
14647	Dichloromethane EC832	10/28/2023	
14719	4ML, Amber Vial, 20220104	1/4/2027	

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP220102 14446	DCM RINSED FILTER PAPER	all	1	4/6/2026
SG220101(13376)	Baked Silica Gel	all	5g	2/28/2030
Sulfate 12/27/21 (	Baked Sodium Sulfate	all	Varies	11/29/2026
DRO220106B	Triacontane SURR 1000 ug/mL	All except LCS,-M	100 uL	4/6/2026
DRO211213A	OTP only SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
DRO211012B	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS	100 uL	11/5/2023
DRO210902A	50,000 ug/mL Oil Std for RRO-In D	LCS-RRO, MS/M	100 uL	9/1/2026

PREP BATCH REPORT

Prep Code: **HC-3520-DRO** Technician: **Jillian L Bostwick** Prep Start Date: **1/10/2022 12:23:22 P**

Prep Batch **162824** Prep Temp **NA °C** Batch Units: **ML** Prep End Date: **1/11/2022 2:30:00 PM**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
B22010369-001DMSD	Ground Water	2	1060	0	0	1.00	0.000943		1/10/2022	1/11/2022
Bottle 4/6: clear, light sediment, on solvent at 1:36PM. SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010369-001DMSD-RRO	Ground Water	2	1040	0	0	1.00	0.000962		1/10/2022	1/11/2022
Bottle 5/6: clear, light sediment, on solvent at 1:33PM. SGT of remainder of sample was done by ALN on 1/13/2022.										
B22010405-001D	Ground Water	2	1020	0	0	1.00	0.00098		1/10/2022	1/11/2022
Bottle /2: clean, no sediment, on solvent at 1:30PM										
B22010409-001D	Ground Water	2	1010	0	0	1.00	0.00099		1/10/2022	1/11/2022
Bottle /2: clean, no sediment, on solvent at 1:27PM										
B22010410-001D	Ground Water	2	1050	0	0	1.00	0.000952		1/10/2022	1/11/2022
Bottle /2: clean, no sediment, on solvent at 1:23PM										
B22010411-001D	Drinking Water	2	970	0	0	1.00	0.00103		1/10/2022	1/11/2022
Bottle /2: clean, no sediment, on solvent at 1:19PM SGT of remainder of sample was done by ALN on 1/12/2022.										
B22010413-001D	Ground Water	2	1050	0	0	1.00	0.000952		1/10/2022	1/11/2022
Bottle /2: clean, no sediment, on solvent at 1:16PM										

Number	Reagent Name	Exp Date	
11	Carbon Filter Water	1/1/2023	
13379	PTFE Boiling Stones 27463755	12/30/2025	
14206	pH-indicator Strips 0-14 HC160347	8/26/2026	
14647	Dichloromethane EC832	10/28/2023	
14719	4ML, Amber Vial, 20220104	1/4/2027	

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP220102 14446	DCM RINSED FILTER PAPER	all	1	4/6/2026
SG220101(13376)	Baked Silica Gel	all	5g	2/28/2030
Sulfate 12/27/21 (	Baked Sodium Sulfate	all	Varies	11/29/2026
DRO220106B	Triacontane SURR 1000 ug/mL	All except LCS,-M	100 uL	4/6/2026
DRO211213A	OTP only SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
DRO211012B	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS	100 uL	11/5/2023
DRO210902A	50,000 ug/mL Oil Std for RRO-In D	LCS-RRO, MS/M	100 uL	9/1/2026

Energy Laboratories Inc

ANALYTICAL RUN Summary

19-Jan-22

Run ID GCFID-HP4-B_220111A

Run Start Date: 1/11/2022
Analyst: Ann Nebel
Ical:
Column ID:
Comments: DRO-8015 CAL information is in Index GCFID-HP4-B_211101A; DRO-8015-OIL CAL information is in Index GCFID-HP4-B_211006B

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211220B	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO220105B	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023
DRO220106A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975736	CCV_0111HP40	HC-8015-DRO-	CCV		1/11/2022 10:02:	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.48262744		5	0	0	0.0513	0.3	0	90%	80	120	0%	
n-Triacontane	S	mg/L		0.1963901		0.2	0	0	0.00054	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975737	CCV_0111HP40	HC-8015-DRO-	CCV		1/11/2022 10:47:	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.2505		15	0	0	0.0358	0.3	0	95%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.78619		15	0	0	0.0782	0.3	50	99%	80	120	0%	
o-Terphenyl	S	mg/L		0.1990003		0.2	0	0	0.000531	0.002	0	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975738	LCS-162824	HC-8015-DRO-	LCS-DOD		1/11/2022 12:17:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975738	LCS-162824	HC-8015-DRO-	LCS-DOD		1/11/2022 12:17:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.31989		15	0	0	0.0358	0.3	0	89%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		14.23223		15	0	0	0.0782	0.3	50	95%	60	132	0%	
o-Terphenyl	S	mg/L		0.1875799		0.2	0	0	0.000531	0.002	0	94%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975739	MB-162824	HC-8015-DRO-	MBLK		1/11/2022 1:01:5	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0358	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0		0	0	0	0.0513	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0782	0.15	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.1099		0.1	0	0	0.00054	0.002	0	110%	50	150	0%	
o-Terphenyl	S	mg/L		0.1971157		0.2	0	0	0.000531	0.002	0	99%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975740	B22010405-001	HC-8015-DRO-	SAMP		1/11/2022 1:46:3	1	162824	1/10/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.035084	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0		0	0	0	0.050274	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.076636	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.1122		0.098	0	0	0.0005292	0.00196	0	114%	50	150	0%	
o-Terphenyl	S	mg/L		0.1981046		0.196	0	0	0.0005204	0.002	0	101%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975741	B22010409-001	HC-8015-DRO-	SAMP		1/11/2022 2:31:2	1	162824	1/10/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.035442	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0		0	0	0	0.050787	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.077418	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.1187		0.099	0	0	0.0005346	0.00198	0	120%	50	150	0%	
o-Terphenyl	S	mg/L		0.2088557		0.198	0	0	0.0005257	0.002	0	105%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975742	B22010410-001	HC-8015-DRO-	SAMP		1/11/2022 3:15:5	1	162824	1/10/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0340816	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0		0	0	0	0.0488376	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0744464	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.1124		0.0952	0	0	0.0005141	0.001904	0	118%	50	150	0%	
o-Terphenyl	S	mg/L		0.1989852		0.1904	0	0	0.0005055	0.002	0	105%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975743	B22010411-001	HC-8015-DRO-	SAMP		1/11/2022 4:45:3	1	162824	1/10/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.04980786		0	0	0	0.036874	0.309	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0		0	0	0	0.052839	0.309	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.080546	0.309	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.119		0.103	0	0	0.0005562	0.00206	0	116%	50	150	0%	
o-Terphenyl	S	mg/L		0.2101127		0.206	0	0	0.0005469	0.00206	0	102%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975744	B22010413-001	HC-8015-DRO-	SAMP		1/11/2022 5:30:2	1	162824	1/10/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0340816	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0		0	0	0	0.0488376	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0744464	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.1116		0.0952	0	0	0.0005141	0.001904	0	117%	50	150	0%	
o-Terphenyl	S	mg/L		0.187386		0.1904	0	0	0.0005055	0.002	0	98%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975745	B22010406-001	HC-8015-DRO-	SAMP		1/11/2022 6:15:3	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.2770699		0	0	0	0.0347618	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.41442105		0	0	0	0.0498123	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		1.009906		0	0	0	0.0759322	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.1036		0.0971	0	0	0.0005243	0.001942	0	107%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975745	B22010406-001	HC-8015-DRO-	SAMP		1/11/2022 6:15:3	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.1694294		0.1942	0	0	0.0005156	0.002	0	87%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975746	B22010338-001	HC-8015-DRO-	SAMP		1/11/2022 7:00:3	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.09052102		0	0	0	0.0340816	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.46153641		0	0	0	0.0488376	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		0.7879083		0	0	0	0.0744464	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.105431		0.0952	0	0	0.0005141	0.001904	0	111%	50	150	0%	
o-Terphenyl	S	mg/L		0.105431		0.1904	0	0	0.0005055	0.002	0	55%	56	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975747	CCV_0111HP41	HC-8015-DRO-	CCV		1/11/2022 8:30:2	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.75774414		5	0	0	0.0513	0.3	0	95%	80	120	0%	
n-Triacontane	S	mg/L		0.2013882		0.2	0	0	0.00054	0.002	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975748	CCV_0111HP41	HC-8015-DRO-	CCV		1/11/2022 9:15:1	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.32943		15	0	0	0.0358	0.3	0	96%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.82229		15	0	0	0.0782	0.3	50	99%	80	120	0%	
o-Terphenyl	S	mg/L		0.2005169		0.2	0	0	0.000531	0.002	0	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975749	B22010262-001	HC-8015-DRO-	SAMP		1/11/2022 11:29:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.09595034		0	0	0	0.0347618	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.29939371		0	0	0	0.0498123	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.4243959		0	0	0	0.0759322	0.3	50	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975749	B22010262-001	HC-8015-DRO-	SAMP		1/11/2022 11:29:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.1115		0.0971	0	0	0.0005243	0.001942	0	115%	50	150	0%	
o-Terphenyl	S	mg/L		0.1670419		0.1942	0	0	0.0005156	0.002	0	86%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975750	B22010260-001	HC-8015-DRO-	SAMP		1/12/2022 12:14:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		4.211734		0	0	0	0.035442	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.66893798		0	0	0	0.050787	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		4.978		0	0	0	0.077418	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.1153		0.099	0	0	0.0005346	0.00198	0	116%	50	150	0%	
o-Terphenyl	S	mg/L		0.1993429		0.198	0	0	0.0005257	0.002	0	101%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975751	B22010369-001	HC-8015-DRO-	SAMP		1/12/2022 1:43:4	1	162824	1/10/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.03698953		0	0	0	0.035084	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.23301362		0	0	0	0.050274	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.295181		0	0	0	0.076636	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.1184		0.098	0	0	0.0005292	0.00196	0	121%	50	150	0%	
o-Terphenyl	S	mg/L		0.2106258		0.196	0	0	0.0005204	0.002	0	107%	56	125	0%	
TEH(Oil Range)	X	mg/L		0.3017402		0	0	0	0.050274	0.3	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975752	B22010369-001	HC-8015-DRO-	MS-DOD		1/12/2022 2:28:2	1	162824	1/10/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.45094		14.565	0.0369895	14.45094	0.0347618	0.3	0	99%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		15.50873		14.565	0.295181	15.50873	0.0759322	0.3	50	104%	60	132	0%	
o-Terphenyl	S	mg/L		0.2044072		0.1942	0	0	0.0005156	0.002	0	105%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975753	B22010369-001	HC-8015-DRO-	MSD-DOD		1/12/2022 3:13:1	1	162824	1/10/2022 1:	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.66577		14.145	0.0369895	14.45094	0.0337594	0.3	0	96%	36	132	6%	
Total Extractable Hydrocarbons	A	mg/L		14.76927		14.145	0.295181	15.50873	0.0737426	0.3	50	102%	60	132	5%	
o-Terphenyl	S	mg/L		0.1931343		0.1886	0	0	0.0005007	0.002	0	102%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975754	B22010366-001	HC-8015-DRO-	SAMP		1/12/2022 4:42:4	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.2123791		0	0	0	0.035442	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.20743495		0	0	0	0.050787	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.4231522		0	0	0	0.077418	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.1246		0.099	0	0	0.0005346	0.00198	0	126%	50	150	0%	
o-Terphenyl	S	mg/L		0.2099779		0.198	0	0	0.0005257	0.002	0	106%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975755	B22010366-002	HC-8015-DRO-	SAMP		1/12/2022 5:27:2	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.1800084		0	0	0	0.035084	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.17764165		0	0	0	0.050274	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.3820381		0	0	0	0.076636	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.1123		0.098	0	0	0.0005292	0.00196	0	115%	50	150	0%	
o-Terphenyl	S	mg/L		0.1951701		0.196	0	0	0.0005204	0.002	0	100%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975756	CCV_0111HP43	HC-8015-DRO-	CCV		1/12/2022 7:41:2	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.7426001		5	0	0	0.0513	0.3	0	95%	80	120	0%	
n-Triacontane	S	mg/L		0.2036749		0.2	0	0	0.00054	0.002	0	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975757	CCV_0111HP43	HC-8015-DRO-	CCV		1/12/2022 8:26:0	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		15.83747		15	0	0	0.0358	0.3	0	106%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.83747		15	0	0	0.0782	0.3	50	106%	80	120	0%	
o-Terphenyl	S	mg/L		0.2130192		0.2	0	0	0.000531	0.002	0	107%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975758	B22010403-001	HC-8015-DRO-	SAMP		1/12/2022 10:39:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0347618	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0		0	0	0	0.0498123	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0759322	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.1073		0.0971	0	0	0.0005243	0.001942	0	111%	50	150	0%	
o-Terphenyl	S	mg/L		0.1904349		0.1942	0	0	0.0005156	0.002	0	98%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975759	B22010361-001	HC-8015-DRO-	SAMP		1/12/2022 11:24:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.0406482		0	0	0	0.0340816	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.13302630		0	0	0	0.0488376	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.1707158		0	0	0	0.0744464	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.1028		0.0952	0	0	0.0005141	0.001904	0	108%	50	150	0%	
o-Terphenyl	S	mg/L		0.1312043		0.1904	0	0	0.0005055	0.002	0	69%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975760	B22010369-001	HC-8015-DRO-	MS-DOD		1/12/2022 2:24:1	1	162824	1/10/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975761	LCS-RRO-1628	HC-8015-DRO-	LCS-DOD		1/12/2022 3:41:0	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.66132021		5	0	0	0.0513	0.3	0	113%	41	113	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975762	B22010369-001	HC-8015-DRO-	MSD-DOD		1/12/2022 4:25:2	1	162824	1/10/2022 1:	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975763	CCV_0111HP44	HC-8015-DRO-	CCV		1/12/2022 5:56:0	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.64466211		5	0	0	0.0513	0.3	0	93%	80	120	0%	
n-Triacontane	S	mg/L		0.1966011		0.2	0	0	0.00054	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14975764	CCV_0111HP44	HC-8015-DRO-	CCV		1/12/2022 6:41:2	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.07457		15	0	0	0.0358	0.3	0	94%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.58736		15	0	0	0.0782	0.3	50	97%	80	120	0%	
o-Terphenyl	S	mg/L		0.1971546		0.2	0	0	0.000531	0.002	0	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985334	LCS-RRO-1628	HC-8015-DRO-	LCS-DOD		1/12/2022 2:24:1	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.53177118		5	0	0	0.0513	0.3	0	111%	41	113	0%	
n-Triacontane	S	mg/L		0.1153		0.1	0	0	0.00054	0.002	0	115%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985335	B22010369-001	HC-8015-DRO-	MSD-DOD		1/12/2022 3:41:0	1	162824	1/10/2022 1:	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.56389284		4.81	0.3017402	5.9532113	0.0493506	0.3	0	109%	41	113	7%	
n-Triacontane	S	mg/L		0.1104		0.0962	0	0	0.0005195	0.002	0	115%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985336	B22010369-001	HC-8015-DRO-	MS-DOD		1/12/2022 4:25:2	1	162824	1/10/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985336	B22010369-001	HC-8015-DRO-	MS-DOD		1/12/2022 4:25:2	1	162824	1/10/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.95321131		4.9	0.3017402	0	0.050274	0.3	0	115%	41	113	0%	S
n-Triacontane	S	mg/L		0.1166		0.098	0	0	0.0005292	0.002	0	119%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985337	CCV_0111HP44	HC-8015-DRO-	CCV		1/12/2022 5:56:0	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.64466211		5	0	0	0.0513	0.3	0	93%	80	120	0%	
n-Triacontane	S	mg/L		0.1966011		0.2	0	0	0.00054	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985338	CCV_0111HP44	HC-8015-DRO-	CCV		1/12/2022 6:41:2	1	R373115		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.07457		15	0	0	0.0358	0.3	0	94%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.58736		15	0	0	0.0782	0.3	50	97%	80	120	0%	
o-Terphenyl	S	mg/L		0.1971546		0.2	0	0	0.000531	0.002	0	99%	80	120	0%	

Energy Laboratories Inc

ANALYTICAL RUN Summary

14-Jan-22

Run ID GCFID-HP4-B_220113A

Run Start Date: 1/13/2022
Analyst: Ann Nebel
Ical:
Column ID:
Comments: DRO-8015 CAL information is in Index GCFID-HP4-B_211101A; DRO-8015-OIL CAL information is in Index GCFID-HP4-B_211006B

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211220B	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO220105B	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023
DRO220106A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977725	CCV_0113HP40	HC-8015-DRO-	CCV		1/13/2022 9:30:2	1	R373170		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.69907422		5	0	0	0.0513	0.3	0	94%	80	120	0%	
n-Triacontane	S	mg/L		0.2037589		0.2	0	0	0.00054	0.002	0	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977726	CCV_0113HP40	HC-8015-DRO-	CCV		1/13/2022 10:15:	1	R373170		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.53135		15	0	0	0	0.3	0	97%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.07784		15	0	0	0.0782	0.3	50	101%	80	120	0%	
o-Terphenyl	S	mg/L		0.2034824		0.2	0	0	0.000531	0.002	0	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977727	LCS-162824	HC-8015-DRO-	LCS-DOD		1/13/2022 12:30:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977727	LCS-162824	HC-8015-DRO-	LCS-DOD		1/13/2022 12:30:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		12.87641		15	0	0	0.0358	0.3	0	86%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		13.65929		15	0	0	0.0782	0.3	0	91%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1912414		0.2	0	0	0.000531	0.002	0	96%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977728	MB-162824	HC-8015-DRO-	MBLK		1/13/2022 1:17:2	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0358	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0513	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0782	0.15	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.1101		0.1	0	0	0.00054	0.002	0	110%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1997521		0.2	0	0	0.000531	0.002	0	100%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977729	B22010369-001	HC-8015-DRO-	SAMP		1/13/2022 2:02:2	1	162824	1/10/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.035084	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.050274	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.076636	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.1012		0.098	0	0	0.0005292	0.00196	0	103%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1838445		0.196	0	0	0.0005204	0.00196	0	94%	56	125	0%	
TEH (SGT-Oil Range)	X	mg/L		0		0	0	0	0.050274	0.294	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977730	B22010369-001	HC-8015-DRO-	MS-DOD		1/13/2022 2:47:1	1	162824	1/10/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		11.72457		14.565	0	0	0.0347618	0.3	0	80%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		12.47227		14.565	0	0	0.0759322	0.3	0	86%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1752579		0.1942	0	0	0.0005156	0.002	0	90%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977731	B22010369-001	HC-8015-DRO-	MSD-DOD		1/13/2022 3:32:0	1	162824	1/10/2022 1:	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		11.66115		14.145	0	11.72457	0.0337594	0.3	0	82%	36	132	1%	
Total Extractable Hydrocarbons (SGT	A	mg/L		12.37689		14.145	0	12.47227	0.0737426	0.3	0	88%	60	132	1%	
o-Terphenyl (SGT)	S	mg/L		0.1733397		0.1886	0	0	0.0005007	0.002	0	92%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977732	B22010366-001	HC-8015-DRO-	SAMP		1/13/2022 5:21:4	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.04176596		0	0	0	0.035442	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.050787	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.077418	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.104		0.099	0	0	0.0005346	0.00198	0	105%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1831218		0.198	0	0	0.0005257	0.00198	0	92%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977733	B22010366-002	HC-8015-DRO-	SAMP		1/13/2022 6:07:0	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.03872443		0	0	0	0.035084	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.050274	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.076636	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0945		0.098	0	0	0.0005292	0.00196	0	96%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1705154		0.196	0	0	0.0005204	0.00196	0	87%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977734	B22010262-001	HC-8015-DRO-	SAMP		1/13/2022 6:52:2	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0347618	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0498123	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0759322	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.1024		0.0971	0	0	0.0005243	0.001942	0	105%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.157635		0.1942	0	0	0.0005156	0.001942	0	81%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977735	CCV_0113HP41	HC-8015-DRO-	CCV		1/13/2022 8:22:4	1	R373170		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.43934766		5	0	0	0.0513	0.3	0	89%	80	120	0%	
n-Triacontane	S	mg/L		0.1996629		0.2	0	0	0.00054	0.002	0	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977736	CCV_0113HP41	HC-8015-DRO-	CCV		1/13/2022 9:07:5	1	R373170		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.35831		15	0	0	0.0358	0.3	0	96%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.75998		15	0	0	0.0782	0.3	50	98%	80	120	0%	
o-Terphenyl	S	mg/L		0.2000457		0.2	0	0	0.000531	0.002	0	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977737	B22010411-001	HC-8015-DRO-	SAMP		1/13/2022 10:38:	1	162824	1/10/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.036874	0.309	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.052839	0.309	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.080546	0.309	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.119		0.103	0	0	0.0005562	0.00206	0	116%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.2167446		0.206	0	0	0.0005469	0.00206	0	105%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977738	B22010361-001	HC-8015-DRO-	SAMP		1/13/2022 11:23:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0340816	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0488376	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0744464	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0827		0.0952	0	0	0.0005141	0.001904	0	87%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1077776		0.1904	0	0	0.0005055	0.001904	0	57%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977739	B22010260-001	HC-8015-DRO-	SAMP		1/14/2022 12:08:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.3618971		0	0	0	0.035442	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.050787	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.3807984		0	0	0	0.077418	0.3	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.1026		0.099	0	0	0.0005346	0.00198	0	104%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1794403		0.198	0	0	0.0005257	0.00198	0	91%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977740	B22010406-001	HC-8015-DRO-	SAMP		1/14/2022 12:53:	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0347618	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0498123	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0759322	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.1024		0.0971	0	0	0.0005243	0.001942	0	105%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1747308		0.1942	0	0	0.0005156	0.001942	0	90%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977741	LCS-RRO-1628	HC-8015-DRO-	LCS-DOD		1/14/2022 2:23:1	1	162824	1/10/2022 1	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.76959562		5	0	0	0.0513	0.3	0	95%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.0962		0.1	0	0	0.00054	0.002	0	96%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977742	B22010369-001	HC-8015-DRO-	MS-DOD		1/14/2022 3:53:1	1	162824	1/10/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		5.14345551		4.9	0	0	0.050274	0.3	0	105%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.1027		0.098	0	0	0.0005292	0.002	0	105%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977743	B22010369-001	HC-8015-DRO-	MSD-DOD		1/14/2022 5:23:0	1	162824	1/10/2022 1:	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977743	B22010369-001	HC-8015-DRO-	MSD-DOD		1/14/2022 5:23:0	1	162824	1/10/2022 1:	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.77431202		4.81	0	5.1434555	0.0493506	0.3	0	99%	41	113	7%	
n-Triacontane (SGT)	S	mg/L		0.0945		0.0962	0	0	0.0005195	0.002	0	98%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977745	CCV_0113HP43	HC-8015-DRO-	CCV		1/14/2022 6:53:1	1	R373170		0	0	

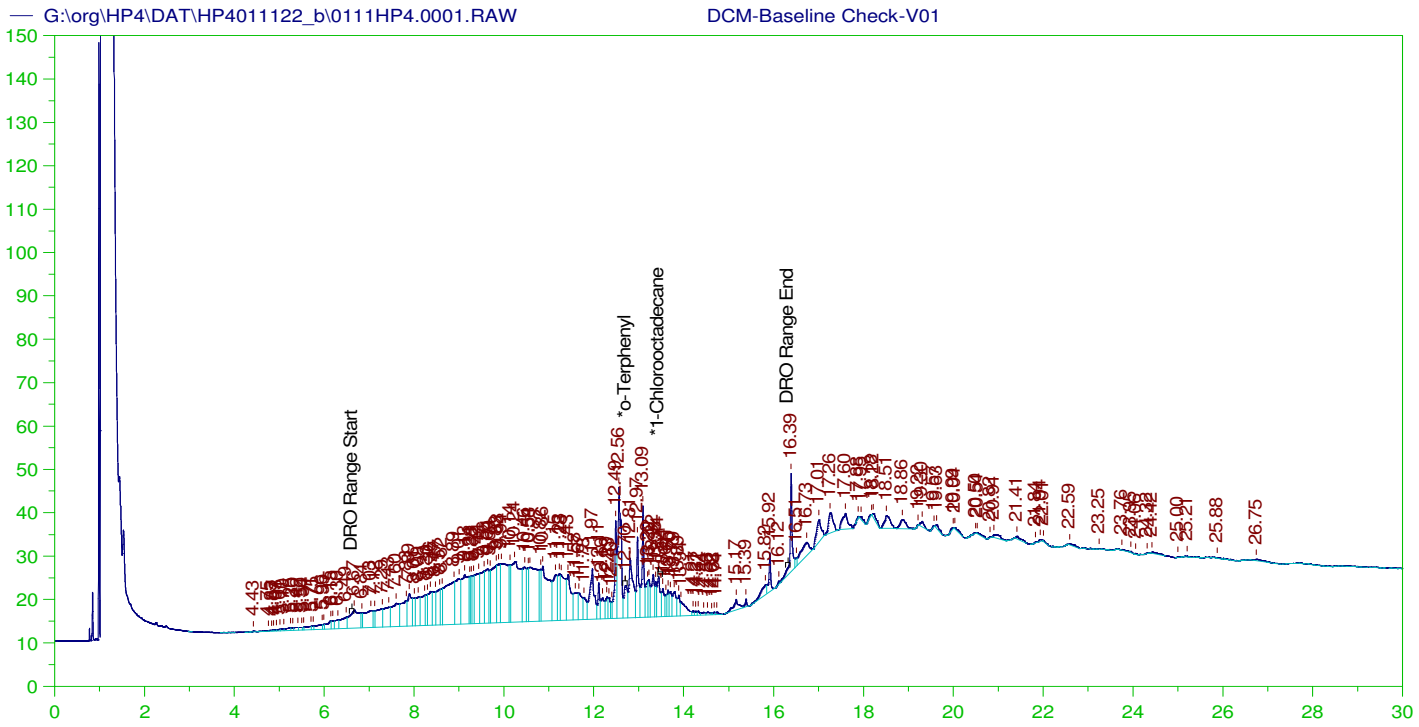
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.75705078		5	0	0	0.0513	0.3	0	95%	80	120	0%	
n-Triacontane	S	mg/L		0.2057083		0.2	0	0	0.00054	0.002	0	103%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14977747	CCV_0113HP43	HC-8015-DRO-	CCV		1/14/2022 7:38:0	1	R373170		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.89244		15	0	0	0.0358	0.3	0	99%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.44913		15	0	0	0.0782	0.3	50	103%	80	120	0%	
o-Terphenyl	S	mg/L		0.2079542		0.2	0	0	0.000531	0.002	0	104%	80	120	0%	

Write Sequence	Insert Entries(Have the first cell for entries selecte							
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	
G:\org\HP4\DAT\HP4011122_b\0111HP4.01r	DCM-Baseline Check-V01	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.02r	DCM-Baseline Check-V02	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.03r	MARKER_0111HP403r, DRO ;0111HP4 , DRO211220B	g:\org\HP4\Methods\CSC220111.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.04r	CCV_0111HP404r, RRO ;0111HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.05r	CCV_0111HP405r, DRO ;0111HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.06r	DCM-Baseline Check-V06	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.07r	LCS-162824 ;0111HP4 ,	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1000	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.08r	MB-162824 ;0111HP4 ,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1000	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.09r	B22010405-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.10r	B22010409-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.11r	B22010410-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.12r	DCM-Baseline Check-V12	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.13r	B22010411-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	970	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.14r	B22010413-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.15r	B22010406-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.16r	B22010338-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.17r	MARKER_0111HP417r, DRO ;0111HP4 , DRO211220B	g:\org\HP4\Methods\CSC220111.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.18r	CCV_0111HP418r, RRO ;0111HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.19r	CCV_0111HP419r, DRO ;0111HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.20r	DCM-Baseline Check-V20	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.21r	B22010403-001D ;0111HP4 , $HC-8015-DRO-W, Needs rr to verify	G:\Org\HP4\methods\DR_8015-C24T-OJ-L0.met	1030	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.22r	B22010262-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-011122-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.23r	B22010260-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.24r	DCM-Baseline Check-V24	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.25r	B22010369-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.26r	B22010369-001DMS ;0111HP4 ,	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1030	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.27r	B22010369-001DMSD ;0111HP4 ,	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1060	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.28r	DCM-Baseline Check-V28	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.29r	B22010366-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-011129-OK-L%.met G:\Org\HP4\Methods\D3_ORO-011129-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.30r	B22010366-002B ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-011129-OK-L%.met G:\Org\HP4\Methods\D3_ORO-011129-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.31r	B22010361-001D ;0111HP4 , $HC-8015-DRO-W, Needs rerun due t	G:\Org\HP4\methods\DR_8015-C24T-OJ-L0.met	1050	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.32r	MARKER_0111HP432r, DRO ;0111HP4 , DRO211220B	g:\org\HP4\Methods\CSC220111.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.33r	CCV_0111HP433r, RRO ;0111HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.34r	CCV_0111HP434r, DRO ;0111HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.35r	DCM-Baseline Check-V35	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.36r	DCM-Baseline Check-V36	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.37r	B22010403-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.38r	B22010361-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-011138-OK-L%.met G:\Org\HP4\Methods\D3_ORO-011138-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.39r	DCM-Baseline Check-V39	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.40r	LCS-RRO-162824 ;0111HP4 , Needs RR to verify	G:\Org\HP4\Methods\D3_ORO-T-AC-L0.met	1000	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.41r	DCM-Baseline Check-V41	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.42r	LCS-RRO-162824 ;0111HP4 , RR	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1000	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.43r	B22010369-001DMSD-RRO ;0111HP4 ,	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1040	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.44r	B22010369-001DMS-RRO ;0111HP4 ,	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1020	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.45r	MARKER_0111HP445r, DRO ;0111HP4 , DRO211220B	g:\org\HP4\Methods\CSC220111.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.46r	CCV_0111HP446r, RRO ;0111HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011122_b\0111HP4.47r	CCV_0111HP447r, DRO ;0111HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	

Write Sequence	Insert Entries(Have the first cell for entries selecte							
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	
G:\org\HP4\DAT\HP4011322_b\0113HP4.01r	DCM-Baseline Check-V01	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.02r	DCM-Baseline Check-V02	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.03r	MARKER_0113HP403r, DRO ;0113HP4 , DRO211220B	g:\org\HP4\Methods\CSC220113.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.04r	CCV_0113HP404r, RRO ;0113HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.05r	CCV_0113HP405r, DRO ;0113HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.06r	DCM-Baseline Check-V06	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.07r	DCM-Baseline Check-V07	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.08r	LCS-162824 ;0113HP4 , SGT	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1000	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.09r	MB-162824 ;0113HP4 , SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1000	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.10r	B22010369-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.11r	B22010369-001DMS ;0113HP4 , SGT	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1030	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.12r	B22010369-001DMSD ;0113HP4 , SGT	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1060	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.13r	DCM-Baseline Check-V13	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.14r	B22010366-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.15r	B22010366-002B ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.16r	B22010262-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.17r	MARKER_0113HP417r, DRO ;0113HP4 , DRO211220B	g:\org\HP4\Methods\CSC220113.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.18r	CCV_0113HP418r, RRO ;0113HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.19r	CCV_0113HP419r, DRO ;0113HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.20r	DCM-Baseline Check-V20	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.21r	B22010411-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	970	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.22r	B22010361-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.23r	B22010260-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-011323-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.24r	B22010406-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.25r	DCM-Baseline Check-V25	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.26r	LCS-RRO-162824 ;0113HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1000	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.27r	DCM-Baseline Check-V27	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.28r	B22010369-001DMS-RRO ;0113HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1020	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.29r	DCM-Baseline Check-V29	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.30r	B22010369-001DMSD-RRO ;0113HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1040	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.31r	MARKER_0113HP432r, DRO ;0113HP4 , DRO211220B	g:\org\HP4\Methods\CSC220113.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.32r	CCV_0113HP433r, RRO ;0113HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	
G:\org\HP4\DAT\HP4011322_b\0113HP4.33r	CCV_0113HP434r, DRO ;0113HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	

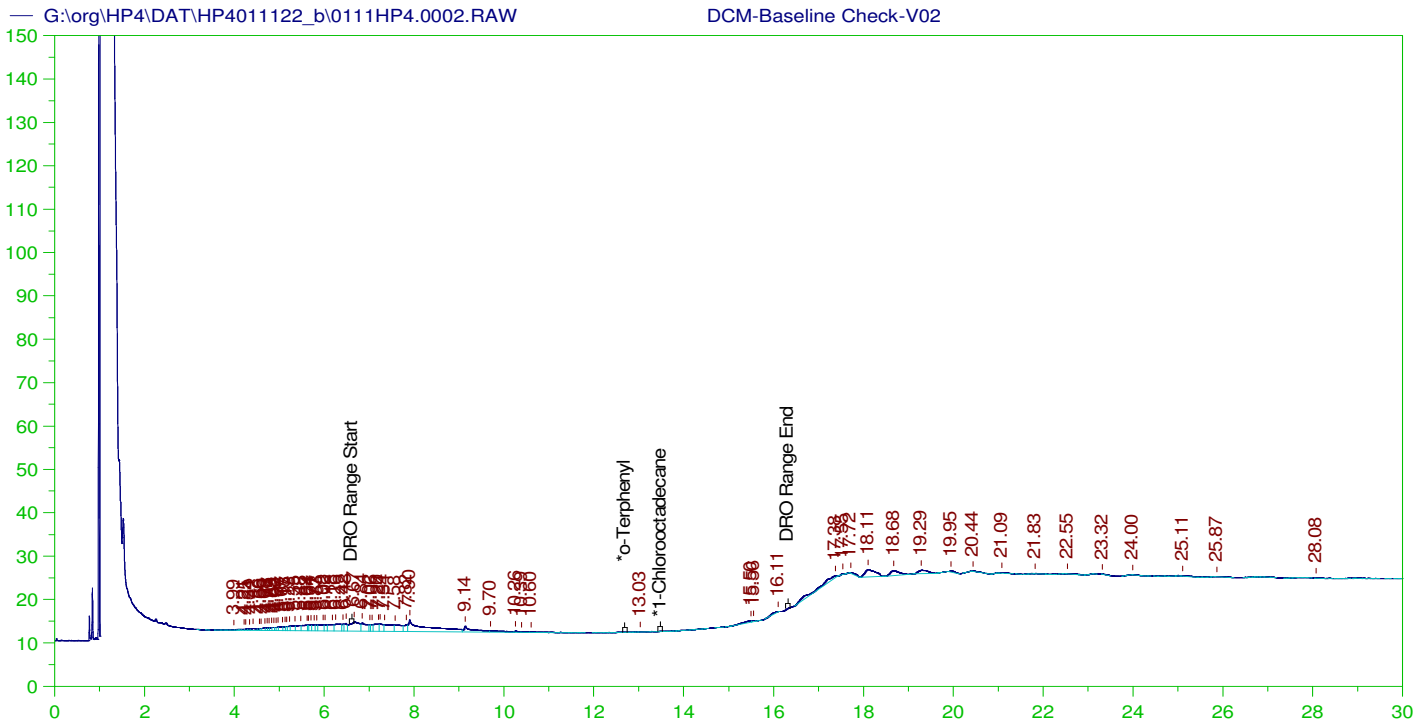


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V01
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0001.RAW
Date & Time Acquired: 1/11/2022 7:48:43 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.705	200.	1.182	.59	-
*1-Chlorooctadecane	13.44	200.	1.335	.67	-

DRO Area:3752683 DRO Amount: 127.7584
TEH Area:4222021 TEH Amount: 143.7368

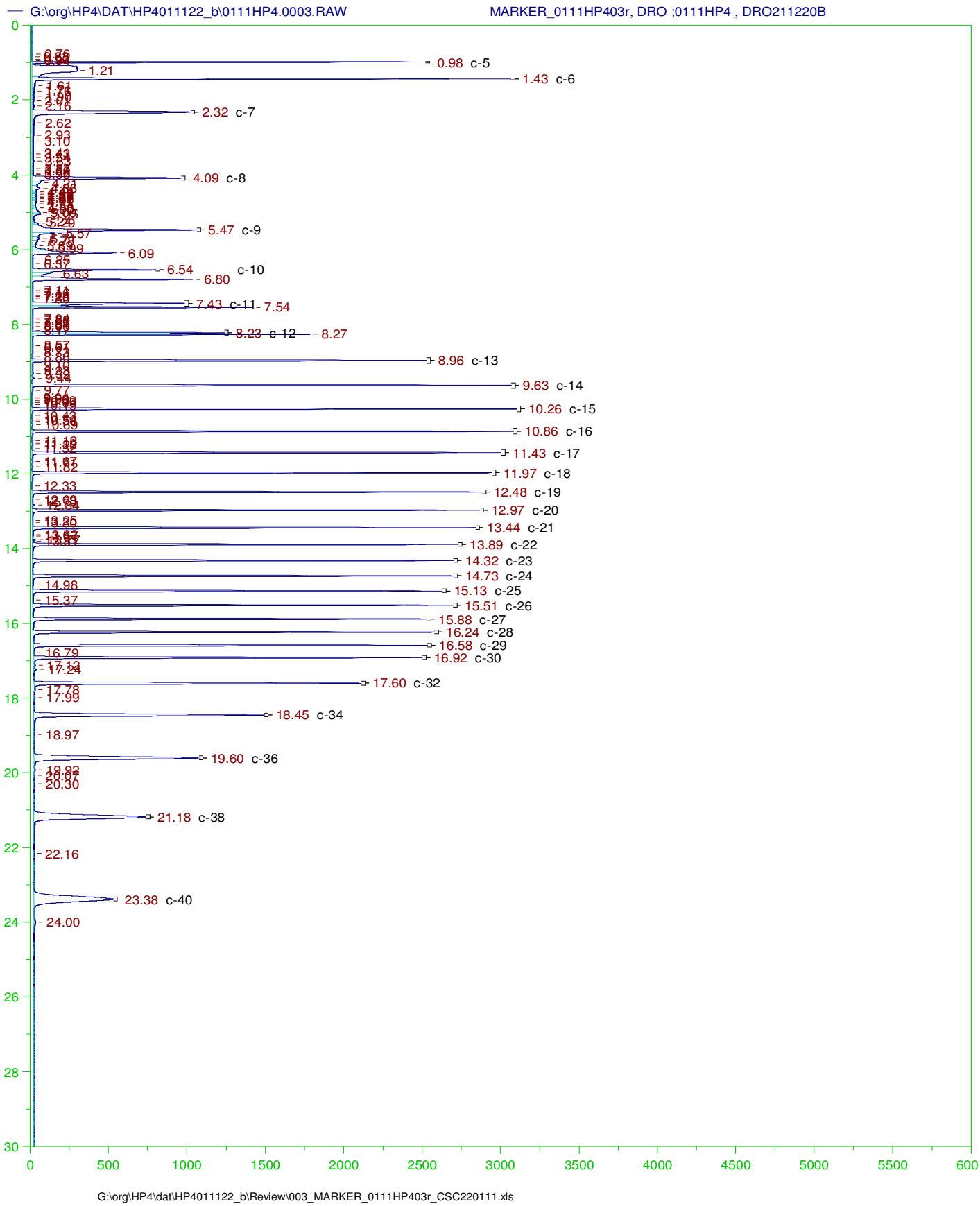


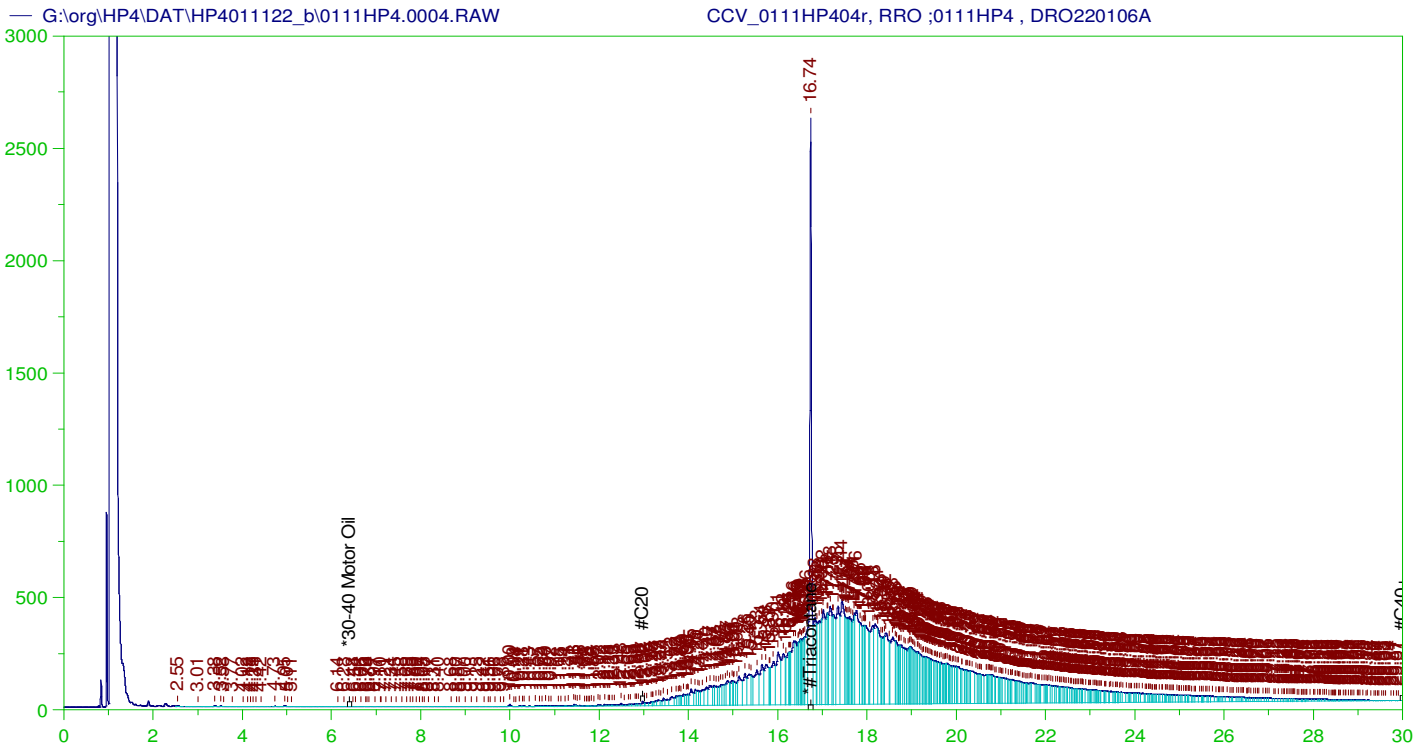
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V02
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0002.RAW
Date & Time Acquired: 1/11/2022 8:33:01 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.955	200.	.	.	-
*1-Chlorooctadecane	29.955	200.	.	.	-

DRO Area:234861.5 DRO Amount: 7.995755
TEH Area:481883.5 TEH Amount: 16.40551


G:\org\HP4\DAT\HP4011122_b\0111HP4.0003.RAW
MARKER_0111HP403r, DRO ;0111HP4 , DRO211220B
0.98 c-5
1.21
1.43 c-6
2.32 c-7
2.62
2.93
3.10
4.09 c-8
5.47 c-9
5.57
6.09
6.54
c-10
6.80
7.43 c-11
7.54
8.23 c-12
8.27
8.96 c-13
9.63 c-14
10.26 c-15
10.86 c-16
11.43 c-17
11.97 c-18
12.33
12.48 c-19
12.97 c-20
13.44 c-21
13.89 c-22
14.32 c-23
14.73 c-24
14.98
15.13 c-25
15.37
15.51 c-26
15.88 c-27
16.24 c-28
16.58 c-29
16.79
16.92 c-30
17.24
17.60 c-32
17.78
17.99
18.45 c-34
18.97
19.60 c-36
19.92
20.07
20.30
21.18 c-38
22.16
23.38 c-40
24.00
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
600
G:\org\HP4\dat\HP4011122_b\Review\003_MARKER_0111HP403r_CSC220111.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP404r, RRO ;0111HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0004.RAW
Date & Time Acquired: 1/11/2022 10:02:15 AM
Method File: G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.739	500.	307.503	61.5	-

~~RRO~~ TEH (Oil Range) Area:1.099569E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4482.627

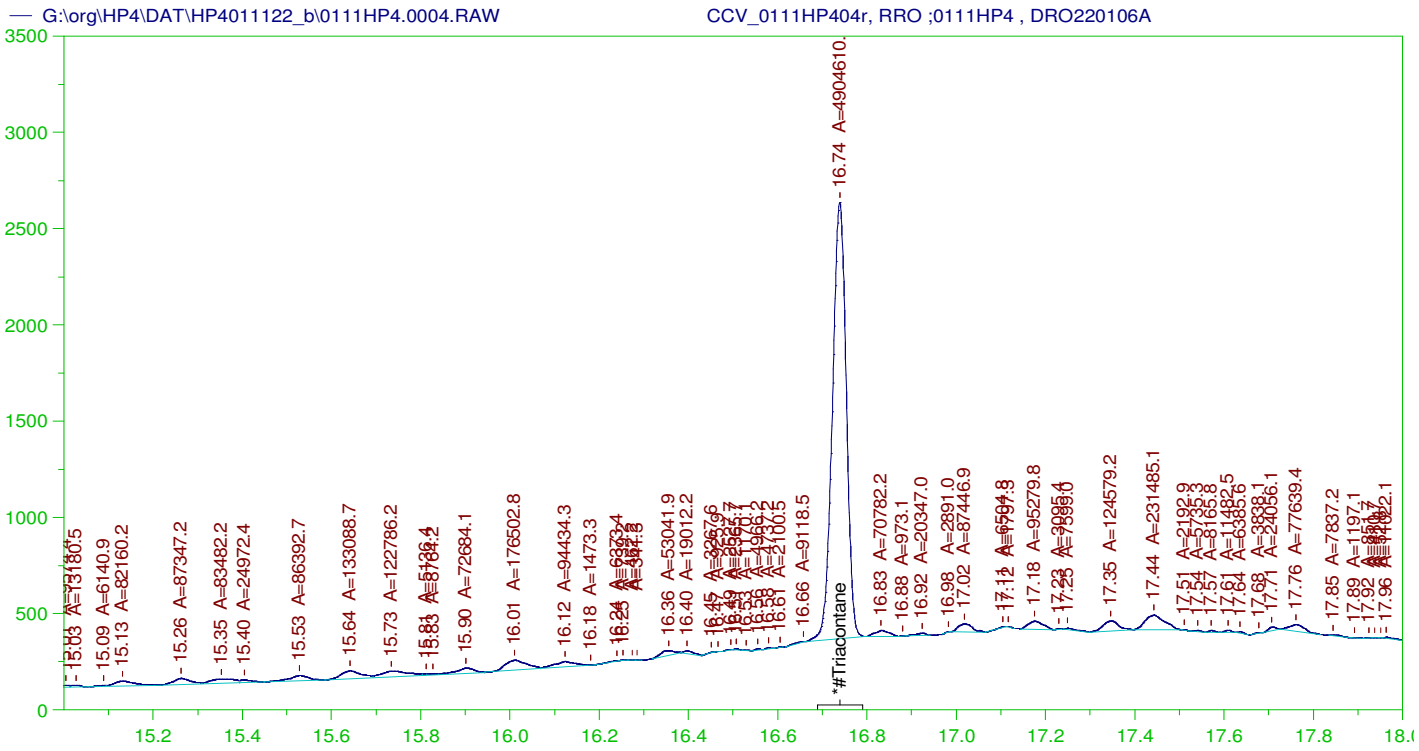
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0004.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.739	200.	307.503	153.75	75-125

AMN 02/01/2022

G:\org\HP4\dat\HP4011122_b\Review\004_CCV_0111HP404r_DC_ORO-T-AD-L%.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP404r, RRO ;0111HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0004.RAW
Date & Time Acquired: 1/11/2022 10:02:15 AM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

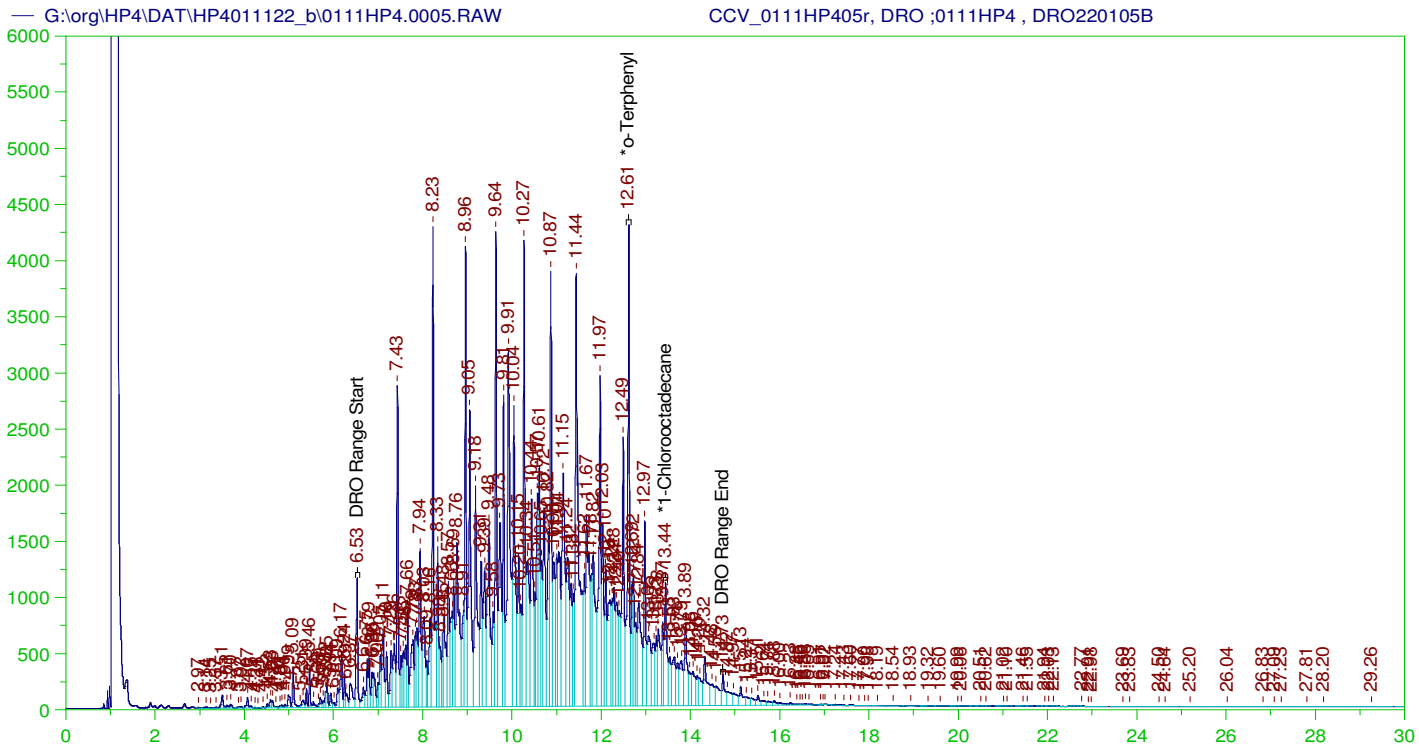
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.739	500.	196.39	39.28	-

RRO Area:3285956 RRO AMOUNT: 133.959

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0004.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.739	200.	196.39	98.2	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0111HP405r, DRO ;0111HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0005.RAW
Date & Time Acquired: 1/11/2022 10:47:20 AM
Method File: G:\Org\HP4\methods\DC_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.613	200.	348.517	174.26	-
*1-Chlorooctadecane	13.439	200.	127.709	63.85	-

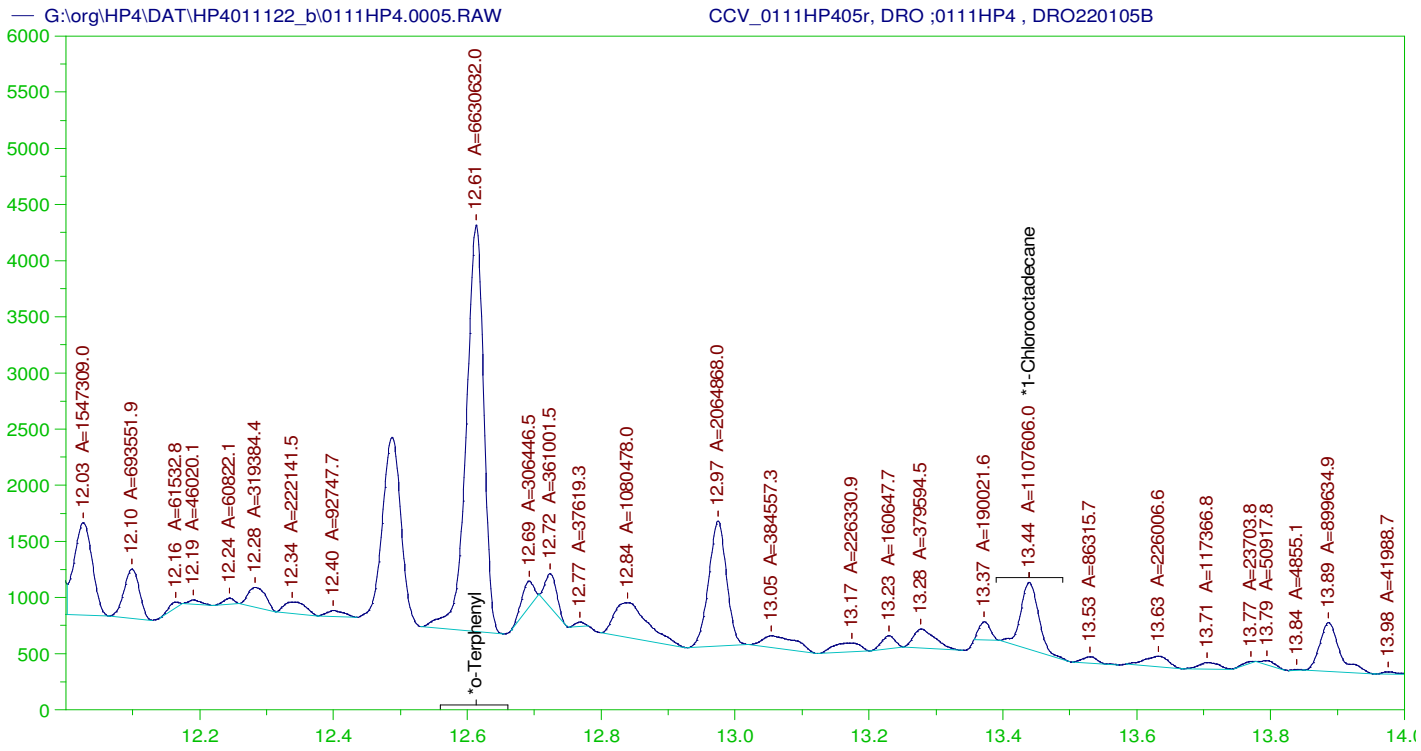
DRO Area:4.185838E+08 DRO Amount: 14250.5
TEH Area:4.343189E+08 TEH Amount: 14786.19

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0005.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14786.19	98.57	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.613	200.	348.517	174.26	85-115
*1-Chlorooctadecane	13.439	200.	127.709	63.85	85-115

G:\org\HP4\dat\HP4011122_b\Review\005_CCV_0111HP405r_DC_8015-C24-OK-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0111HP405r, DRO ;0111HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0005.RAW
Date & Time Acquired: 1/11/2022 10:47:20 AM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

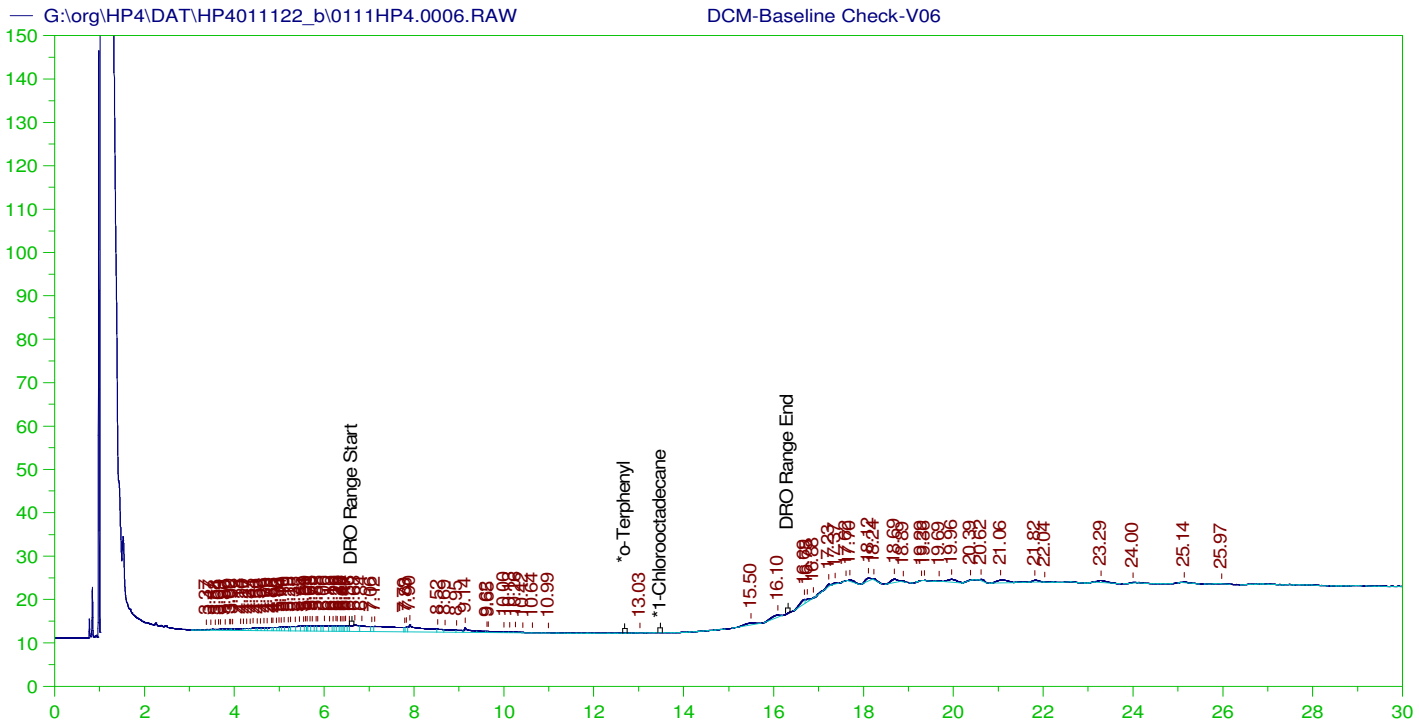
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.613	200.	199.	99.5	-
*1-Chlorooctadecane	13.439	200.	33.242	16.62	-

DRO Area:1.805019E+08 DRO Amount: 6145.106
TEH Area:1.90402E+08 TEH Amount: 6482.15

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0005.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	6482.15	43.21	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.613	200.	199.	99.5	85-115
*1-Chlorooctadecane	13.439	200.	33.242	16.62	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

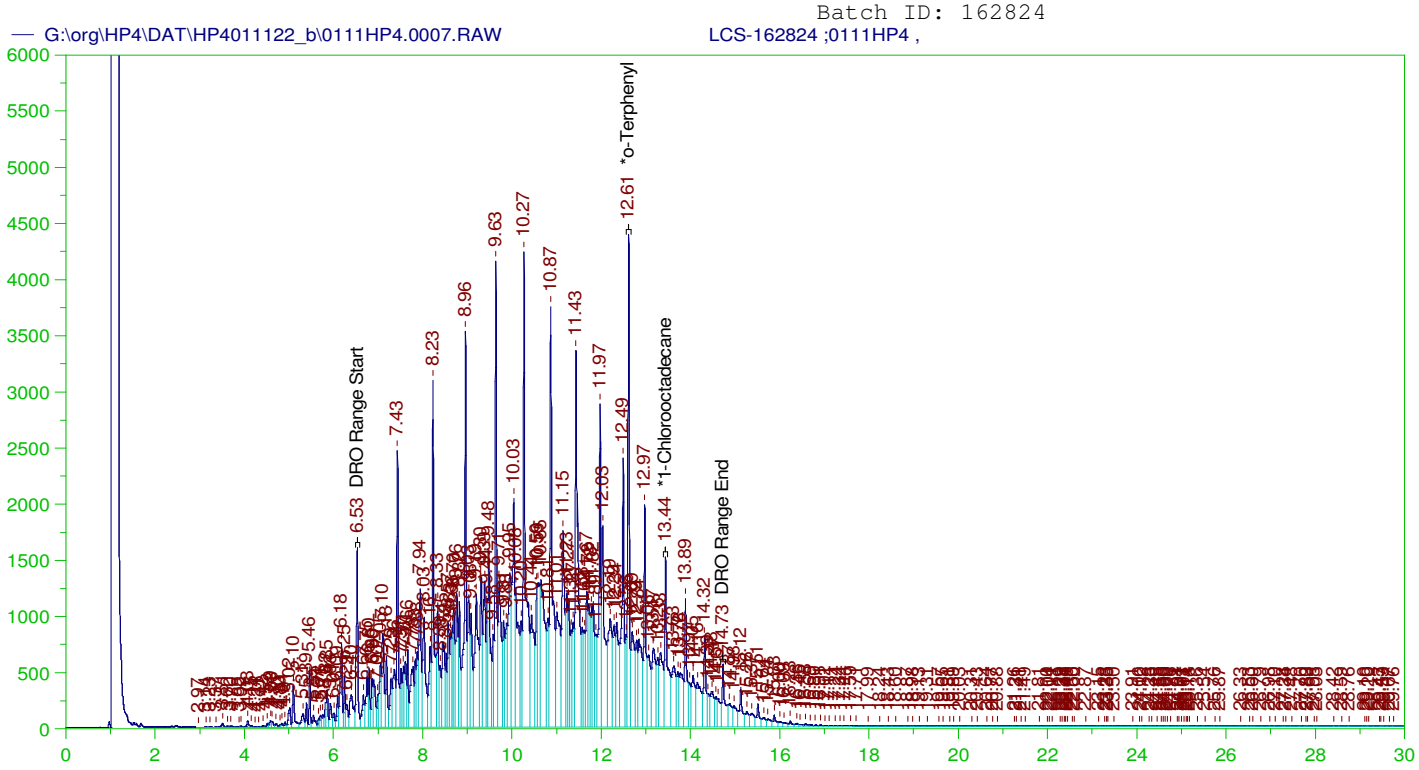
Sample Name: DCM-Baseline Check-V06
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0006.RAW
Date & Time Acquired: 1/11/2022 11:32:26 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.902	200.	.	.	-
*1-Chlorooctadecane	29.902	200.	.	.	-

DRO Area:189992.7 DRO Amount: 6.468215
TEH Area:424116.3 TEH Amount: 14.43885

Batch ID: 162824



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

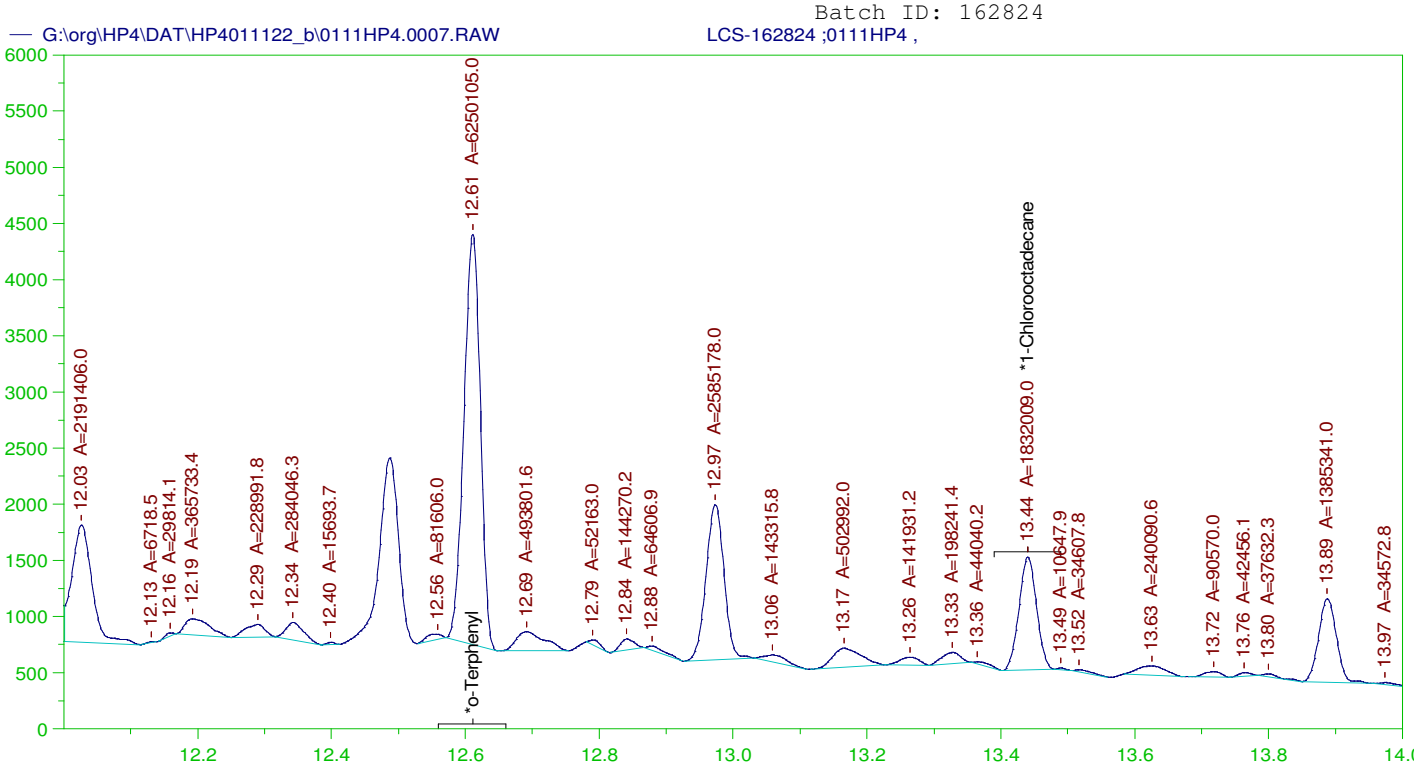
Sample Name: LCS-162824 ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0007.RAW
Date & Time Acquired: 1/11/2022 12:17:12 PM
Method File: G:\Org\HP4\methods\D3_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.611	.2	.29	145.22	-
*1-Chlorooctadecane	13.44	.2	.2	99.87	-

DRO Area:3.912488E+08 DRO Amount: 13.31989
TEH Area:4.180473E+08 TEH Amount: 14.23223

Batch ID: 162824



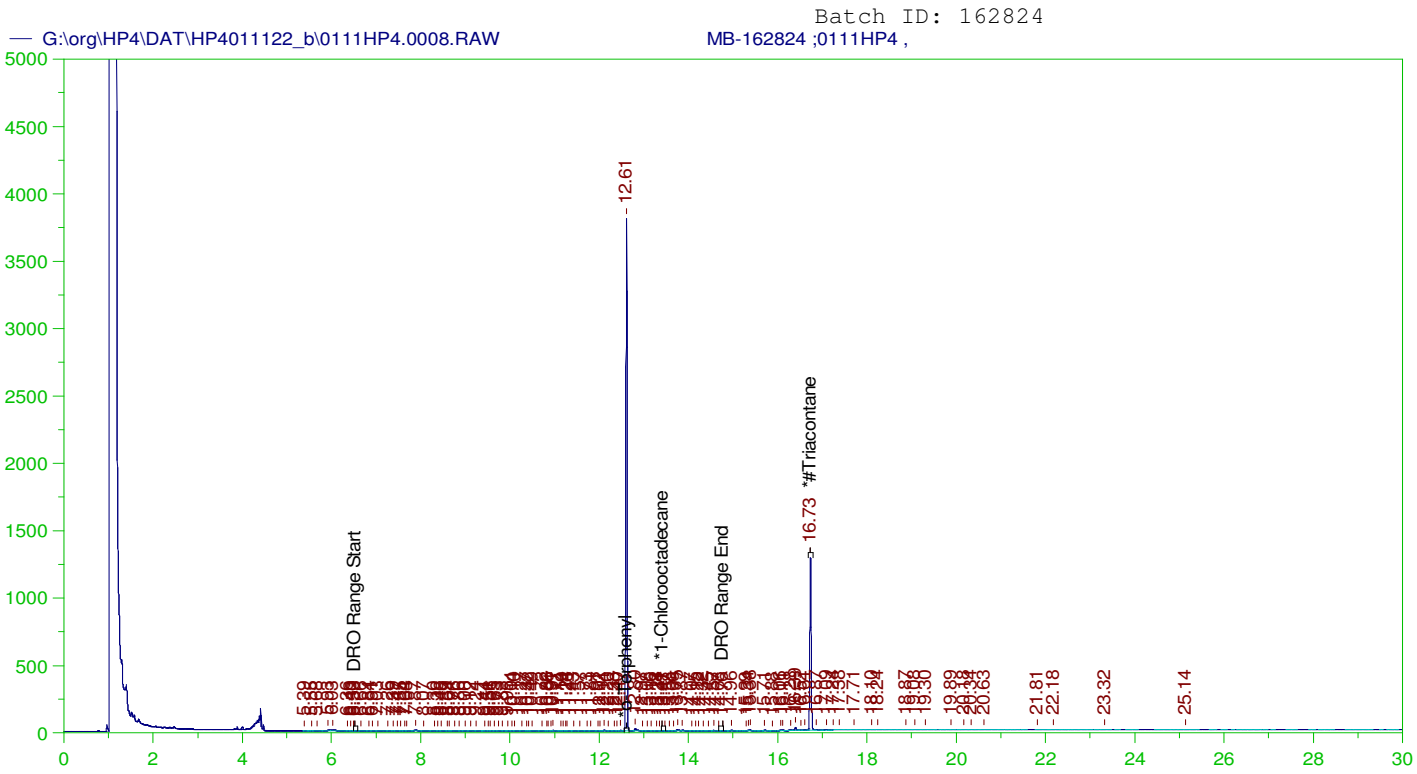
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-162824 ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0007.RAW
Date & Time Acquired: 1/11/2022 12:17:12 PM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.611	.2	.188	93.79	-
*1-Chlorooctadecane	13.44	.2	.055	27.49	-

DRO Area:1.592271E+08 DRO Amount: 5.420815
TEH Area:1.729048E+08 TEH Amount: 5.886466

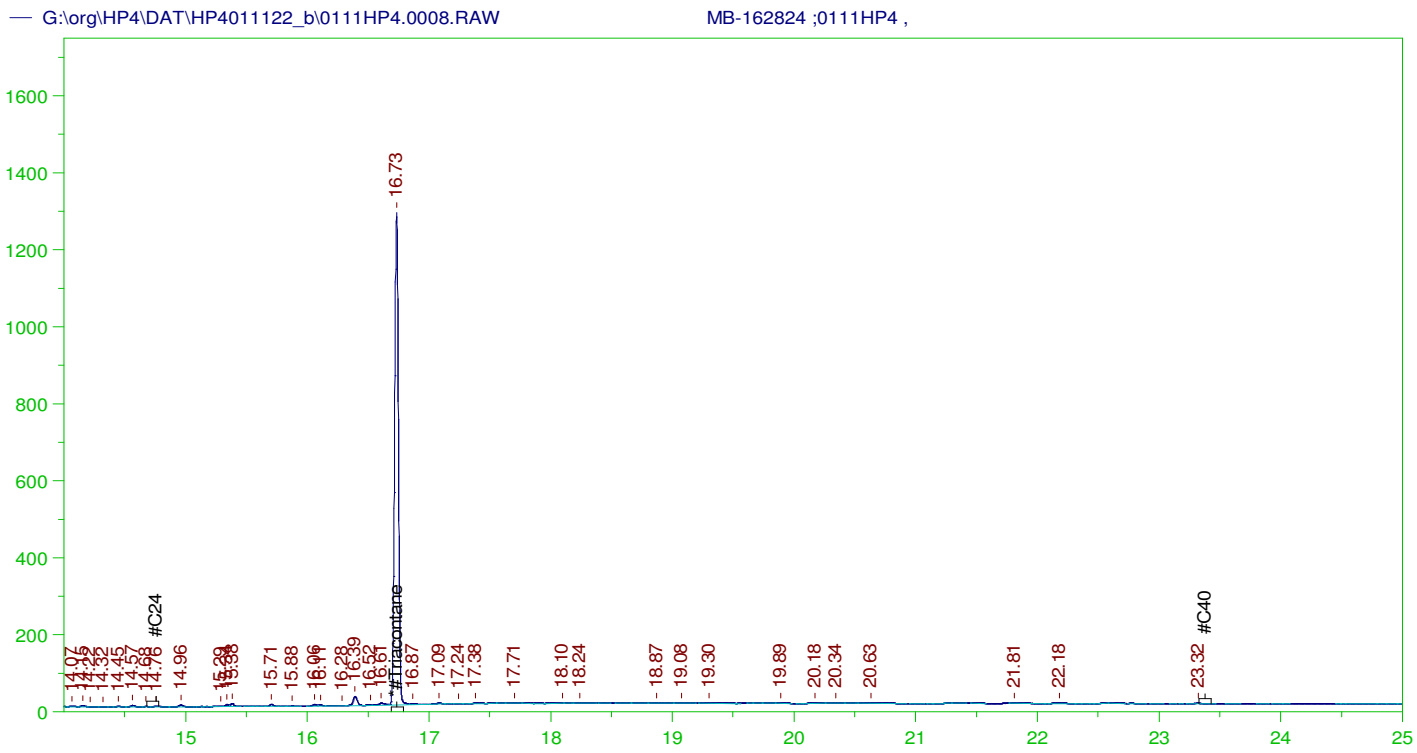


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: MB-162824 ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0008.RAW
Date & Time Acquired: 1/11/2022 1:01:50 PM
Method File: G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.2	.197	98.71	-
*1-Chlorooctadecane	13.412	.2	.	.07	-
*#Triacontane	16.734	.2	.11	55.2	-

DRO Area:421983.7 DRO Amount: 1.436624E-02
TEH Area:696060.9 TEH Amount: 2.369708E-02



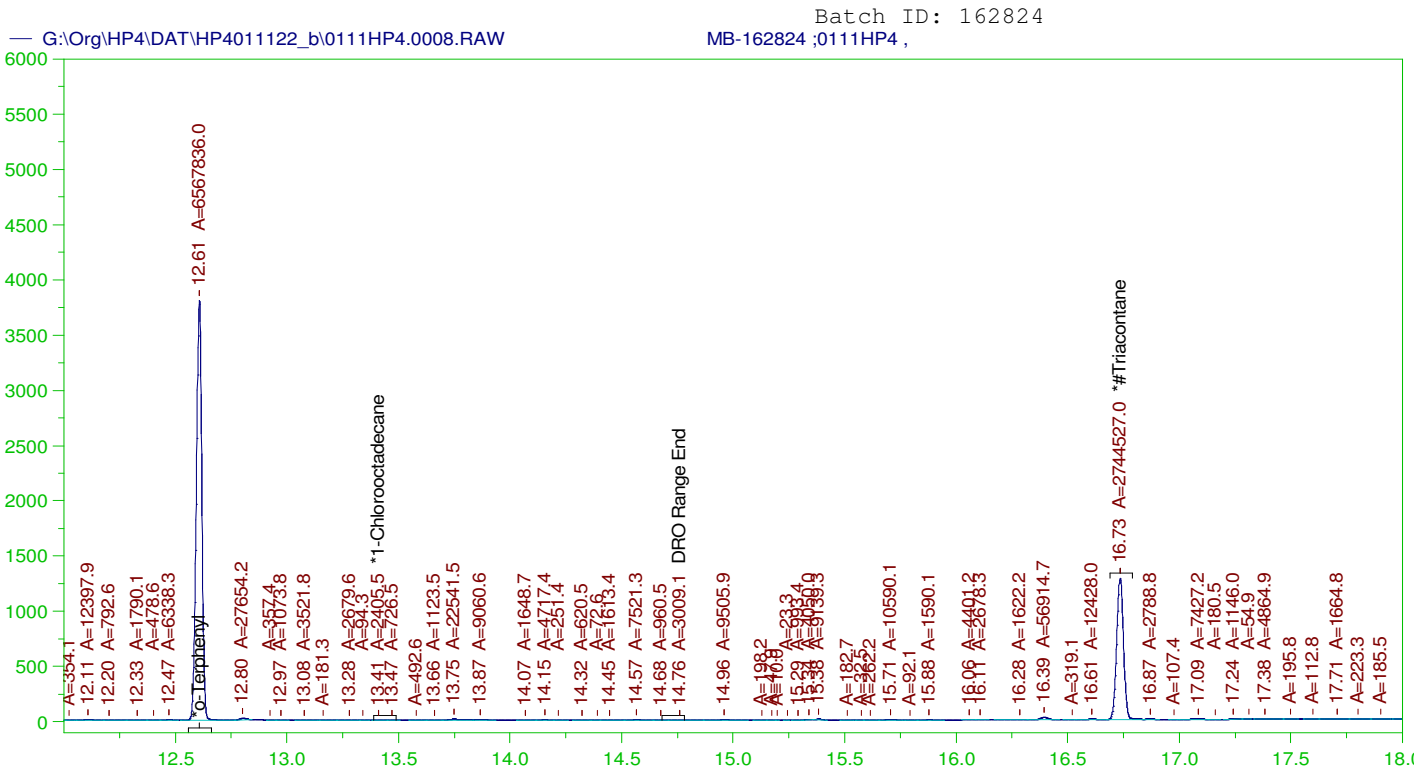
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: MB-162824 ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0008.RAW
Date & Time Acquired: 1/11/2022 1:01:50 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.734	.5	.11	22.08	-

RRO Area:187531.6 RRO AMOUNT: 7.645125E-03



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162824 ;0111HP4 ,
Raw File: G:\Org\HP4\DAT\HP4011122_b\0111HP4.0008.RAW
Date & Time Acquired: 1/11/2022 1:01:50 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

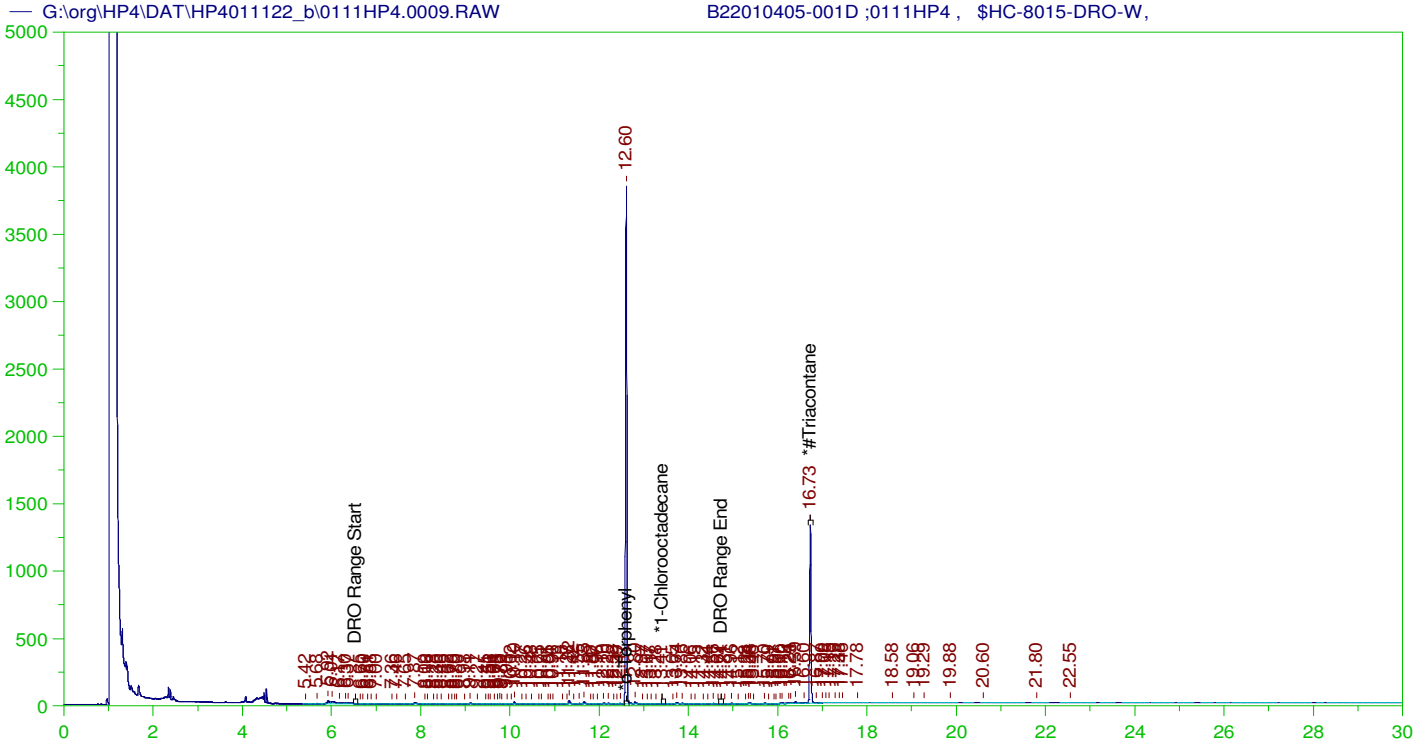
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.2	.197	98.56	-
*1-Chlorooctadecane	13.412	.2	.	.04	-
*#Triacontane	16.734	.2	.11	54.95	-

DRO Area:335641.3 DRO Amount: 1.142676E-02
TEH Area:1849223 TEH Amount: 6.295595E-02

ERH2338 (OWDFMW01) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0009.RAW B22010405-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010405-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0009.RAW
Date & Time Acquired: 1/11/2022 1:46:31 PM
Method File: G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.602	.196	.199	101.25	-
*1-Chlorooctadecane	13.407	.196	. .03		-
*#Triacontane	16.73	.196	.113	57.41	-

DRO Area:532882.4 DRO Amount: 1.778602E-02
TEH Area:968698.8 TEH Amount: 3.233227E-02

ERH2338 (OWDFMW01) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0009.RAW B22010405-001D ;0111HP4 , $HC-8015-DRO-W,

RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010405-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0009.RAW
Date & Time Acquired: 1/11/2022 1:46:31 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

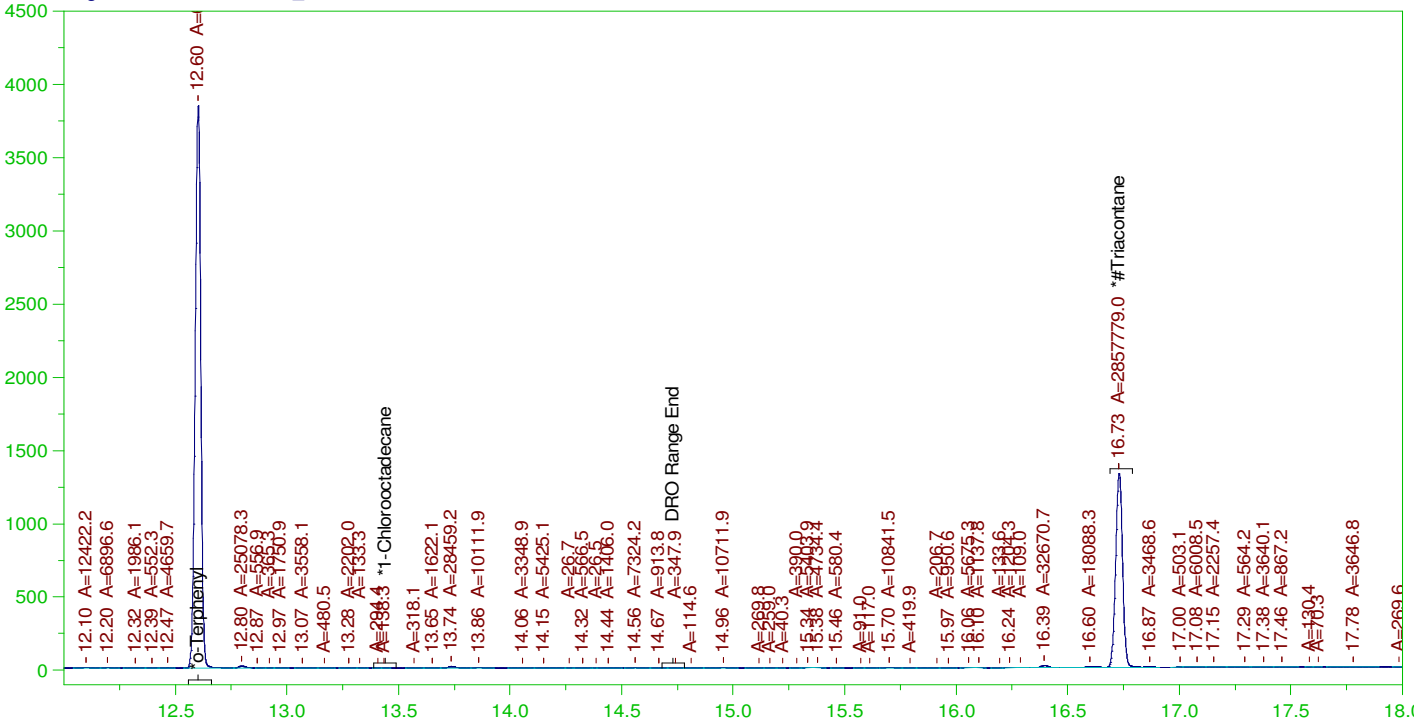
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.73	.49	.113	22.96	-

RRO Area:153586.5 RRO AMOUNT: 6.138513E-03

ERH2338 (OWDFMW01) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0009.RAW B22010405-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010405-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0009.RAW
Date & Time Acquired: 1/11/2022 1:46:31 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

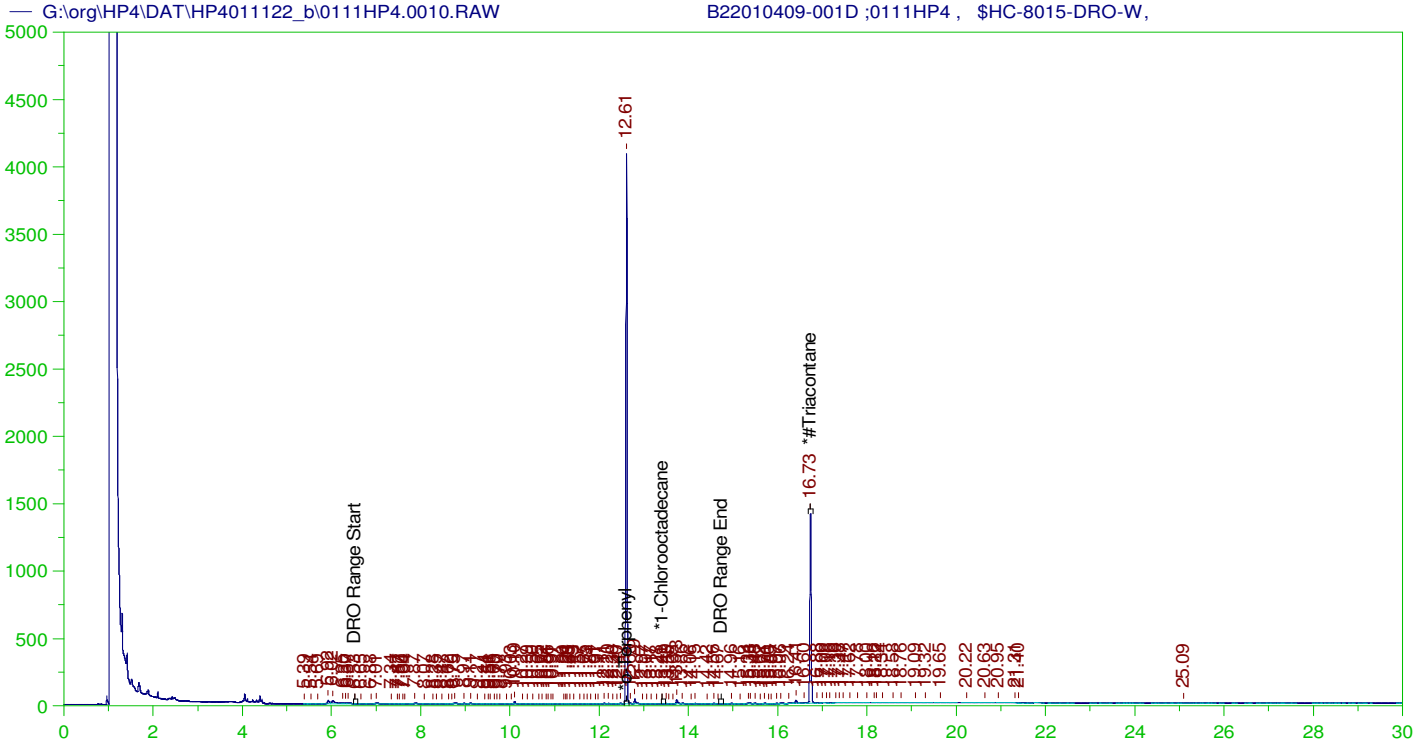
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.602	.196	.198	101.03	-
*1-Chlorooctadecane	29.974	.196	.	.	-
*#Triacontane	16.73	.196	.112	57.22	-

DRO Area:466817.6 DRO Amount: 1.558097E-02
TEH Area:1888477 TEH Amount: 6.303172E-02

ERH2356 (RHMW12A) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0010.RAW B22010409-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010409-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0010.RAW
Date & Time Acquired: 1/11/2022 2:31:20 PM
Method File: G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

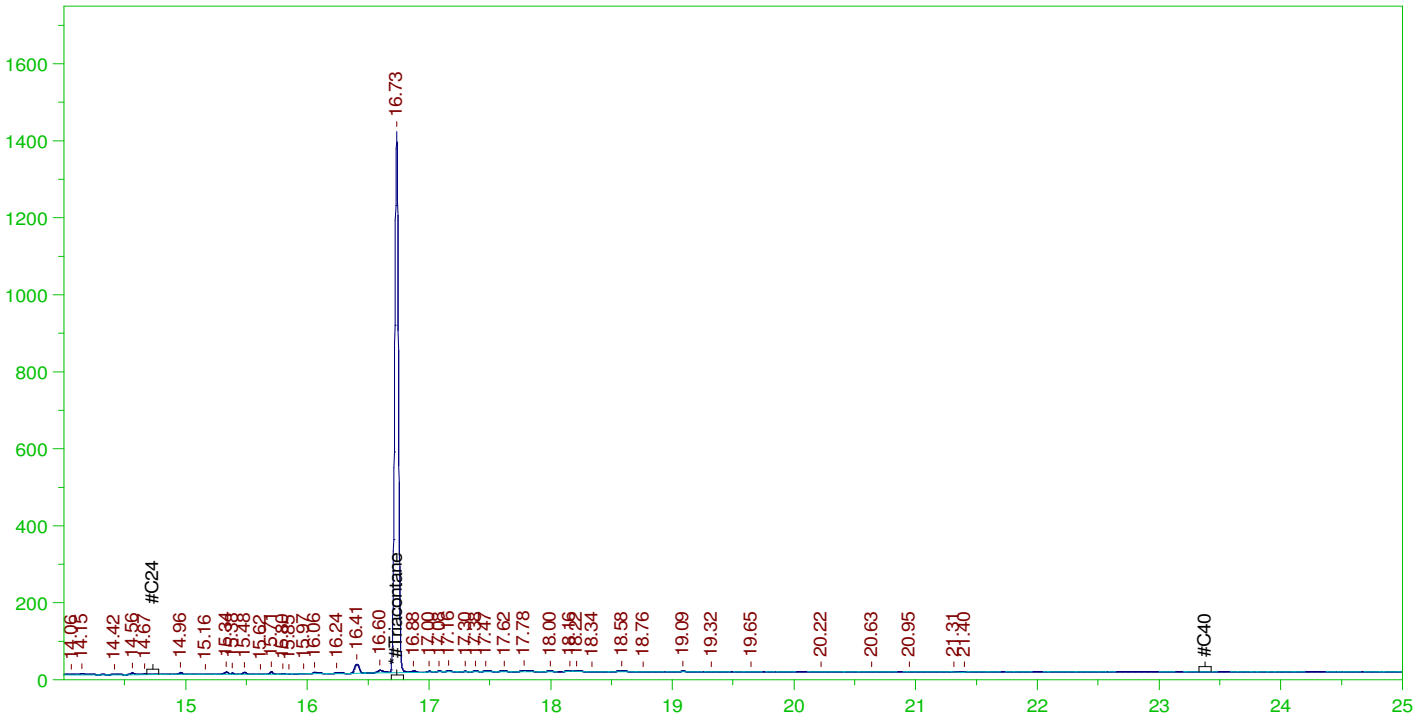
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.608	.198	.209	105.71	-
*1-Chlorooctadecane	13.409	.198	. .08		-
*#Triacontane	16.735	.198	.119	60.19	-

DRO Area:622601.6 DRO Amount: 2.098633E-02
TEH Area:1191234 TEH Amount: 4.015348E-02

ERH2356 (RHMW12A) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0010.RAW B22010409-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010409-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0010.RAW
Date & Time Acquired: 1/11/2022 2:31:20 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

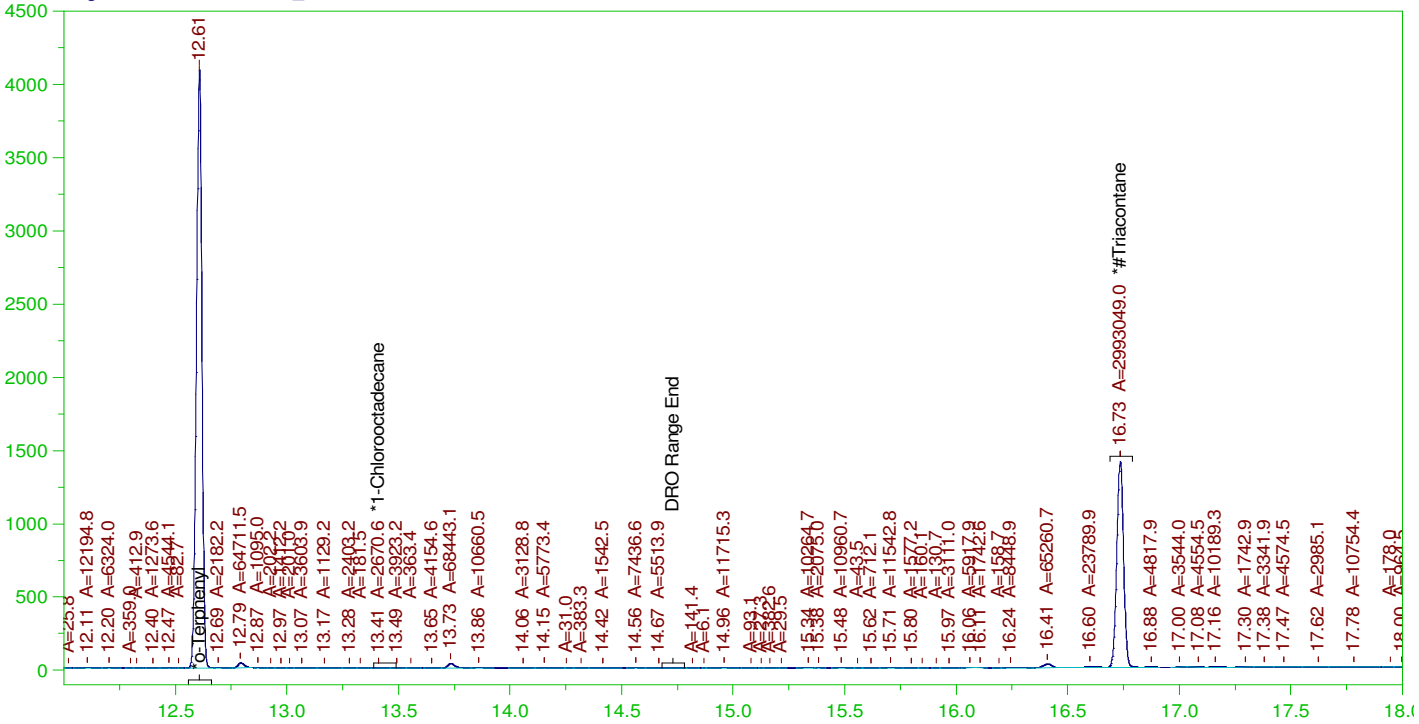
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.735	.495	.119	24.08	-

RRO Area:267891.8 RRO AMOUNT: 1.081305E-02

ERH2356 (RHMW12A) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0010.RAW B22010409-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010409-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0010.RAW
Date & Time Acquired: 1/11/2022 2:31:20 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

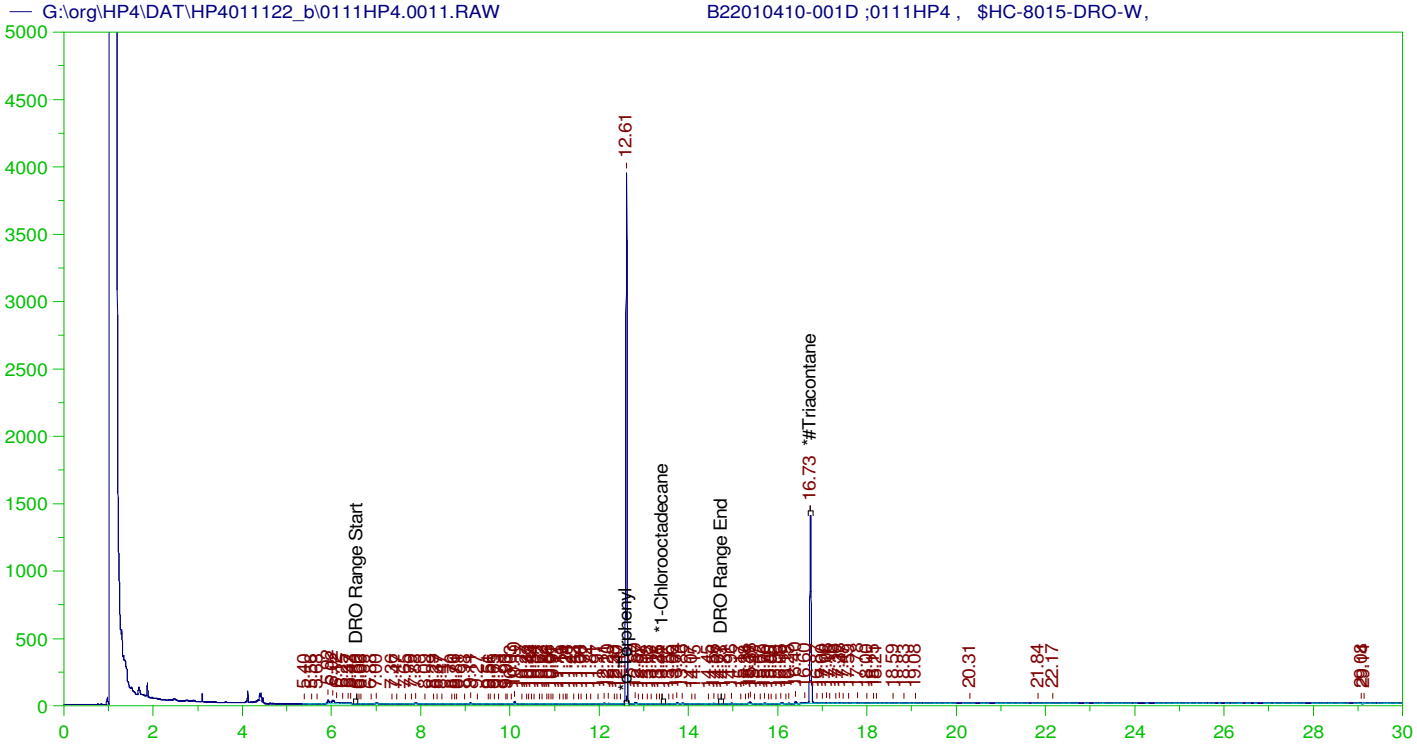
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.608	.198	.209	105.47	-
*1-Chlorooctadecane	13.409	.198	.	.04	-
*#Triacontane	16.735	.198	.119	59.92	-

DRO Area:500230.2 DRO Amount: 0.0168615
TEH Area:1817831 TEH Amount: 6.127449E-02

ERH2354 (RHMW16) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0011.RAW B22010410-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010410-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0011.RAW
Date & Time Acquired: 1/11/2022 3:15:56 PM
Method File: G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

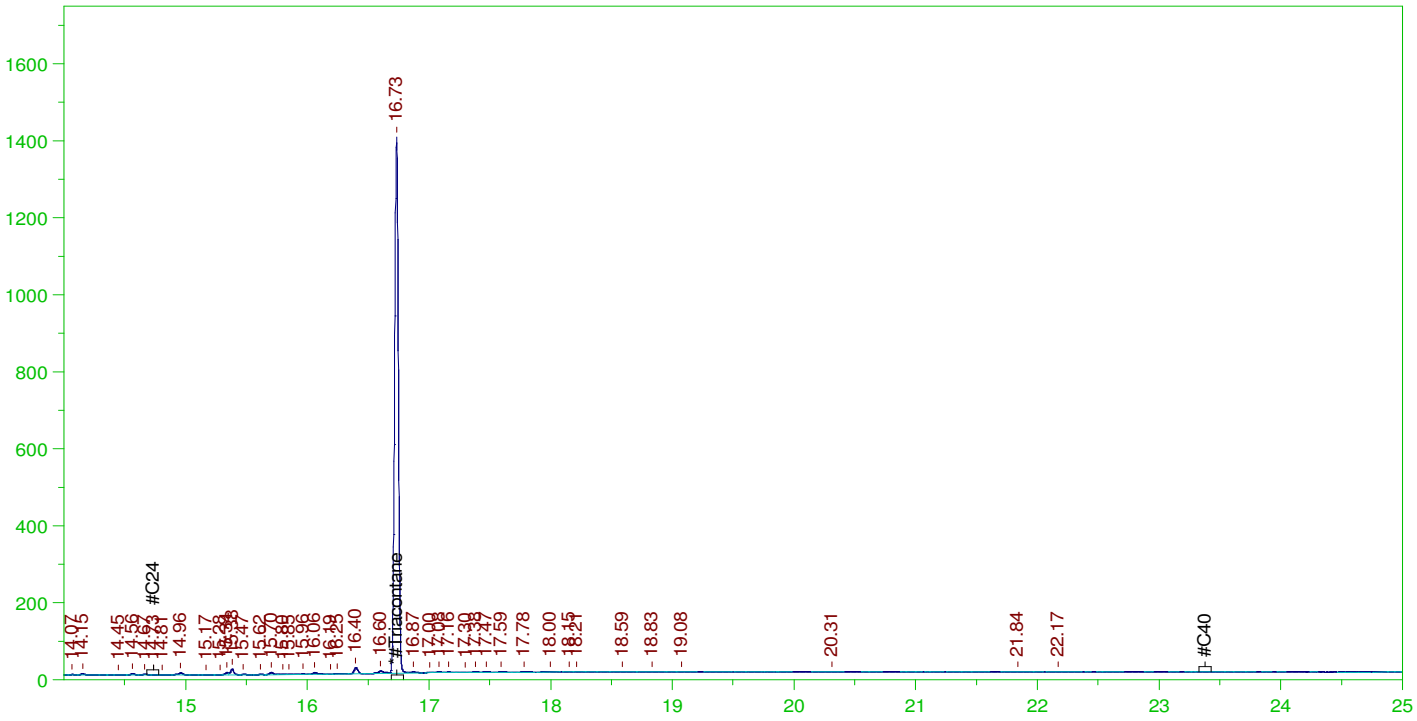
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.19	.199	104.65	-
*1-Chlorooctadecane	13.411	.19	.	.06	-
*#Triacontane	16.734	.19	.113	59.22	-

DRO Area:446385.9 DRO Amount: 1.447334E-02
TEH Area:1028418 TEH Amount: 0.0333448

ERH2354 (RHMW16) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0011.RAW B22010410-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010410-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0011.RAW
Date & Time Acquired: 1/11/2022 3:15:56 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.734	.476	.113	23.69	-

RRO Area:195443.3 RRO AMOUNT: 7.588252E-03

ERH2354 (RHMW16) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0011.RAW B22010410-001D ;0111HP4 , $HC-8015-DRO-W,

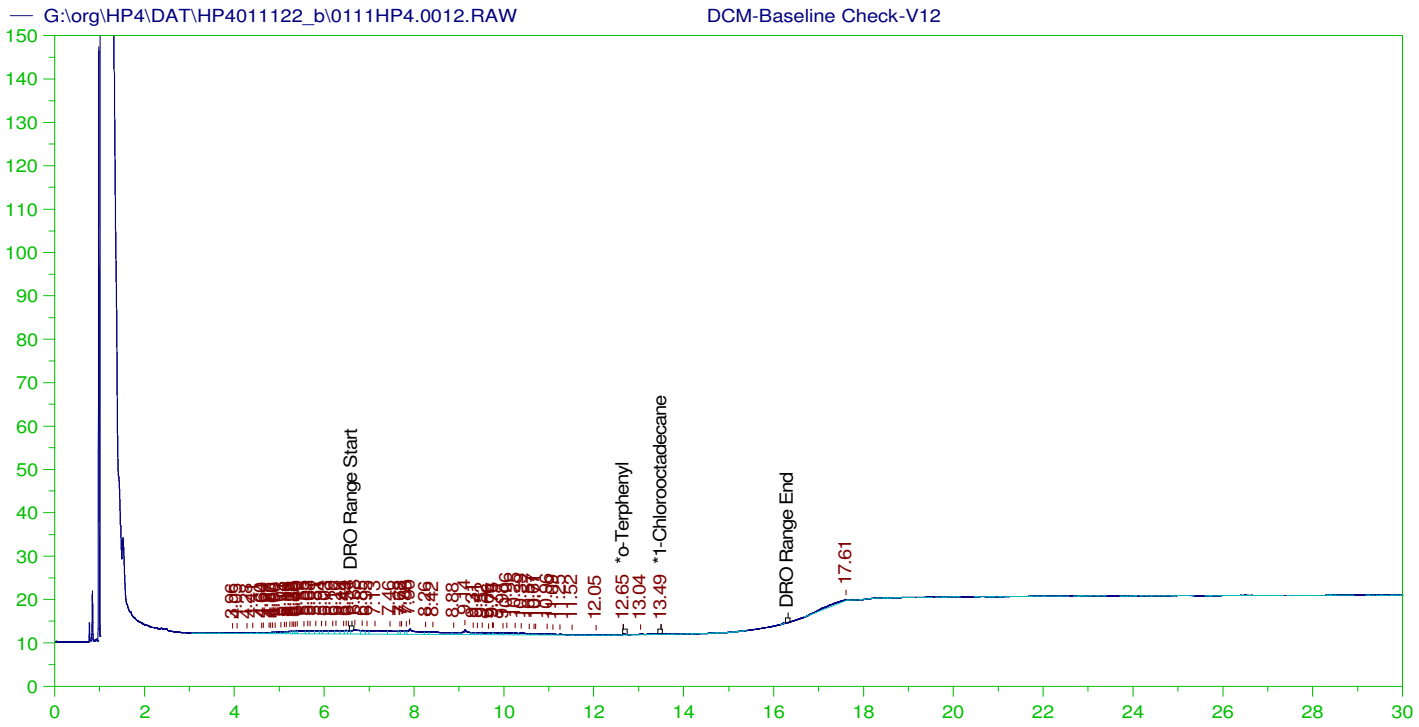
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010410-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0011.RAW
Date & Time Acquired: 1/11/2022 3:15:56 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.19	.199	104.47	-
*1-Chlorooctadecane	13.411	.19	.	.05	-
*#Triacontane	16.734	.19	.112	59.02	-

DRO Area:429030.2 DRO Amount: 1.391061E-02
TEH Area:1795961 TEH Amount: 5.823114E-02



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V12
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0012.RAW
Date & Time Acquired: 1/11/2022 4:00:46 PM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

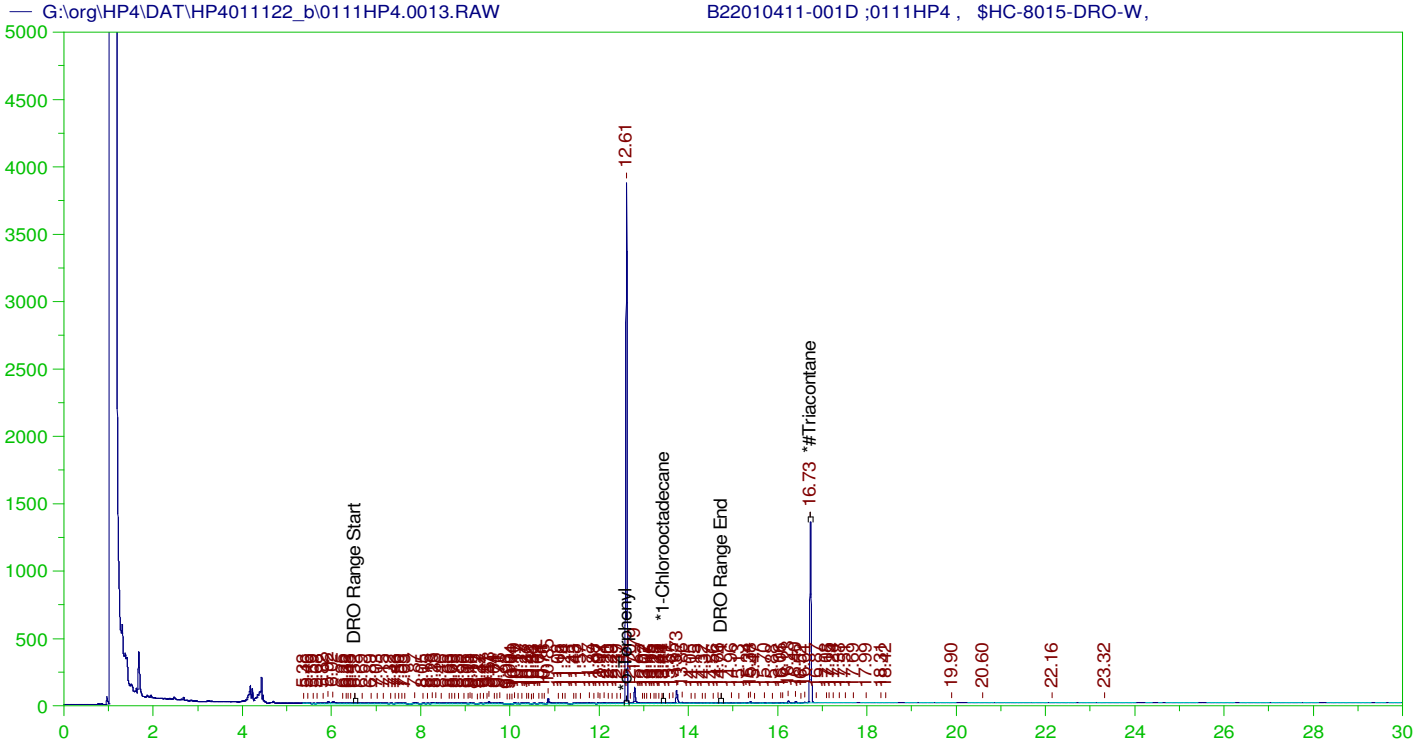
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.654	200.	.035	.02	-
*1-Chlorooctadecane	13.495	200.	.016	.01	-

DRO Area:155240.9 DRO Amount: 5.285107
TEH Area:264089.8 TEH Amount: 8.990819

ERH2352 (RHMW13 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0013.RAW B22010411-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010411-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0013.RAW
Date & Time Acquired: 1/11/2022 4:45:32 PM
Method File: G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 970 Dilution: 1 S.A.: 1

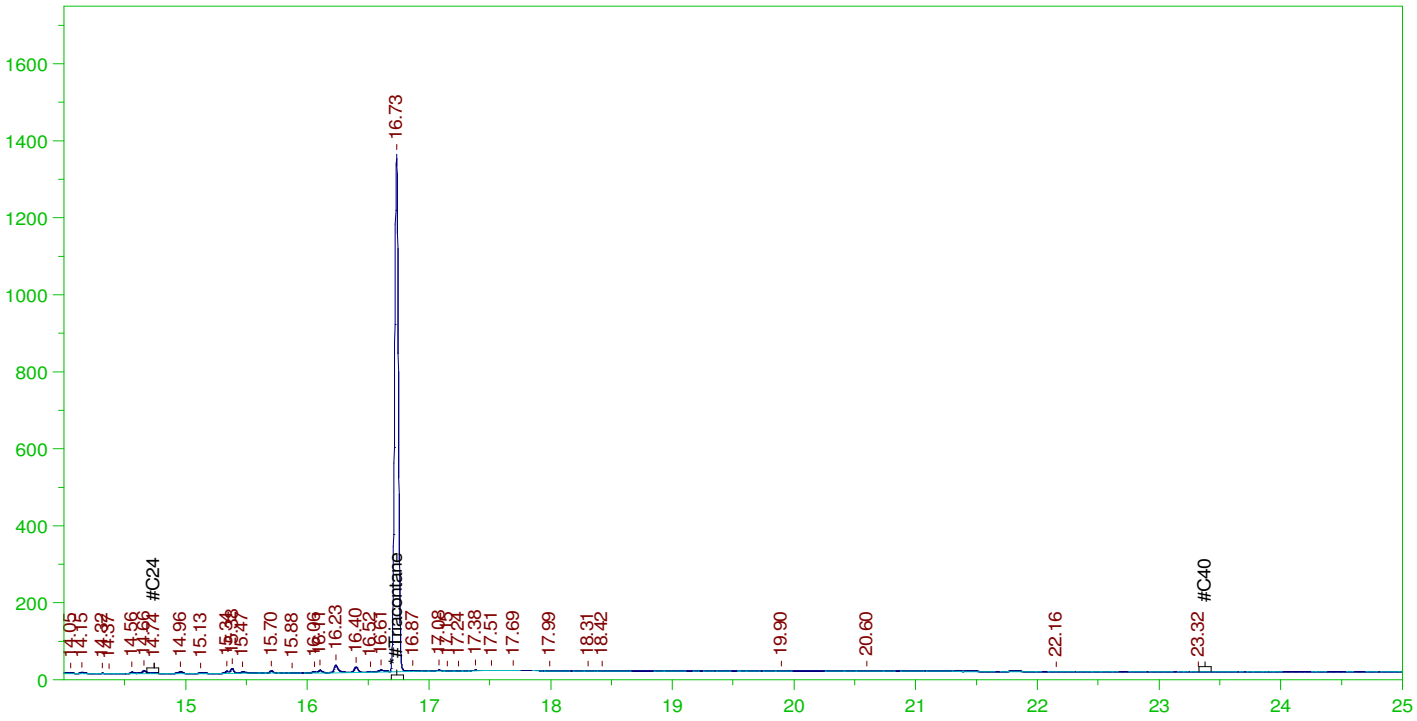
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.206	.211	102.09	-
*1-Chlorooctadecane	13.445	.206	. .07		-
*#Triacontane	16.734	.206	.119	57.91	-

DRO Area:1419129 DRO Amount: 4.980786E-02
TEH Area:1877801 TEH Amount: 6.590607E-02

ERH2352 (RHMW13 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0013.RAW B22010411-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010411-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0013.RAW
Date & Time Acquired: 1/11/2022 4:45:32 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 970 Dilution: 1 S.A.: 1

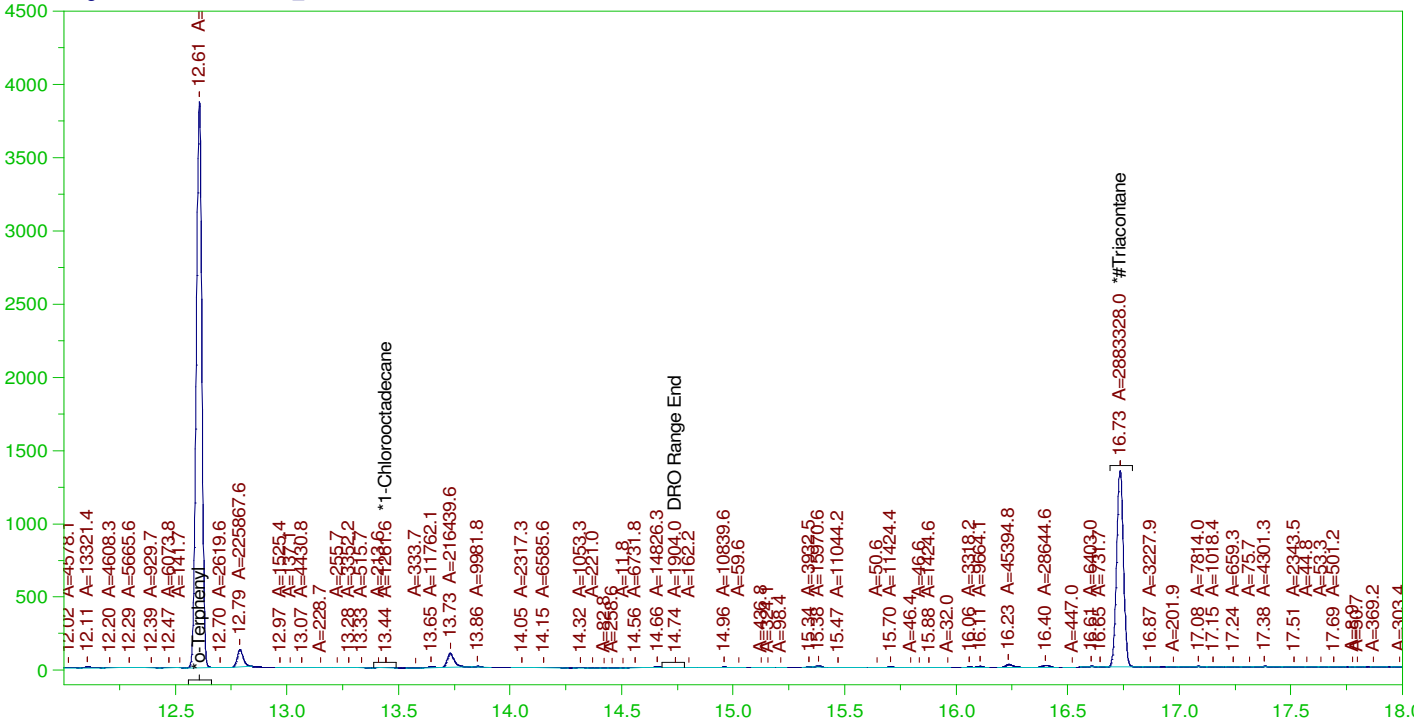
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.734	.515	.119	23.16	-

RRO Area:231767.8 RRO AMOUNT: 9.740729E-03

ERH2352 (RHMW13 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0013.RAW B22010411-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010411-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0013.RAW
Date & Time Acquired: 1/11/2022 4:45:32 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 970 Dilution: 1 S.A.: 1

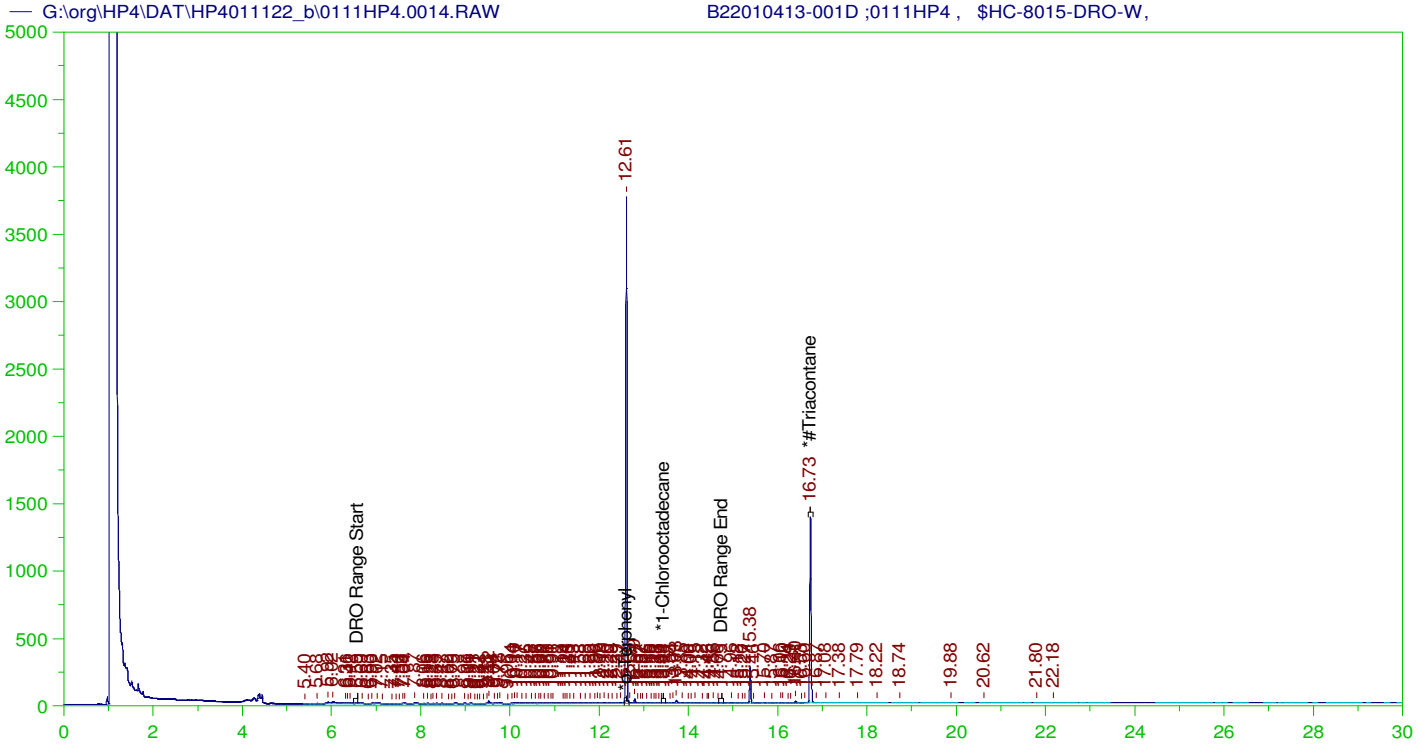
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.206	.21	101.9	-
*1-Chlorooctadecane	13.445	.206	.	.02	-
*#Triacontane	16.734	.206	.119	57.73	-

DRO Area:1153405 DRO Amount: 4.048161E-02
TEH Area:3371528 TEH Amount: 0.1183321

ERH2346 (OWDFMW05A) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0014.RAW B22010413-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010413-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0014.RAW
Date & Time Acquired: 1/11/2022 5:30:27 PM
Method File: G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

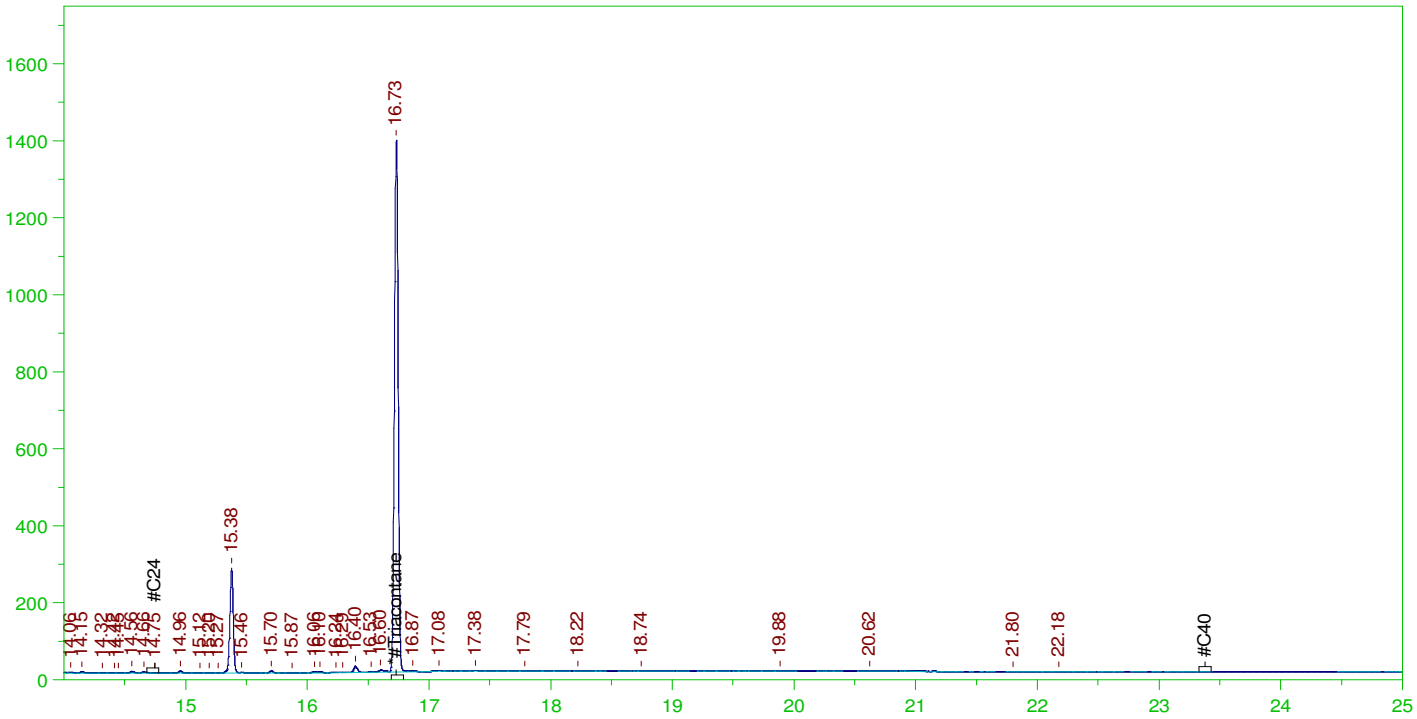
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.606	.19	.188	98.83	-
*1-Chlorooctadecane	13.439	.19	.	.18	-
*#Triacontane	16.732	.19	.112	58.76	-

DRO Area:869875.9 DRO Amount: 2.820432E-02
TEH Area:1741394 TEH Amount: 5.646188E-02

ERH2346 (OWDFMW05A) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0014.RAW B22010413-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010413-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0014.RAW
Date & Time Acquired: 1/11/2022 5:30:27 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

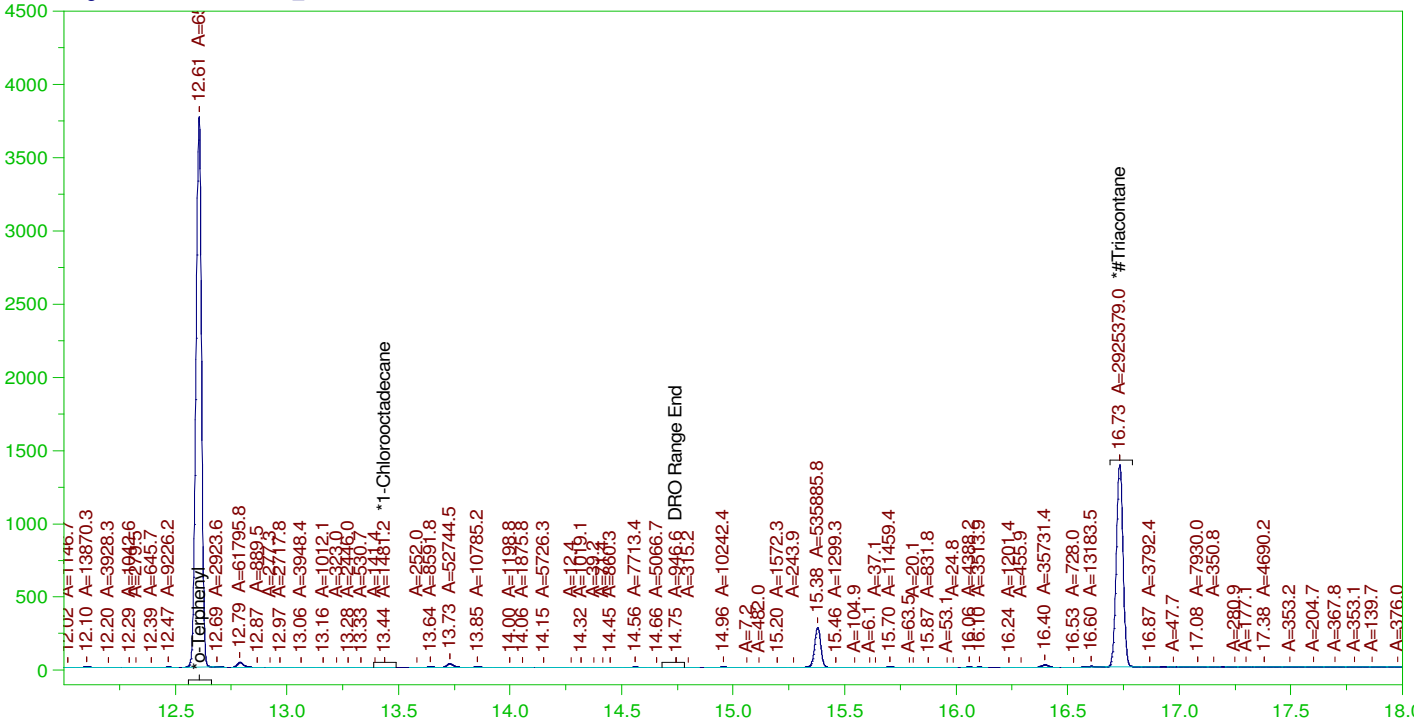
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.732	.476	.112	23.5	-

RRO Area:683552.5 RRO AMOUNT: 0.0265395

ERH2346 (OWDFMW05A) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0014.RAW B22010413-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010413-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0014.RAW
Date & Time Acquired: 1/11/2022 5:30:27 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

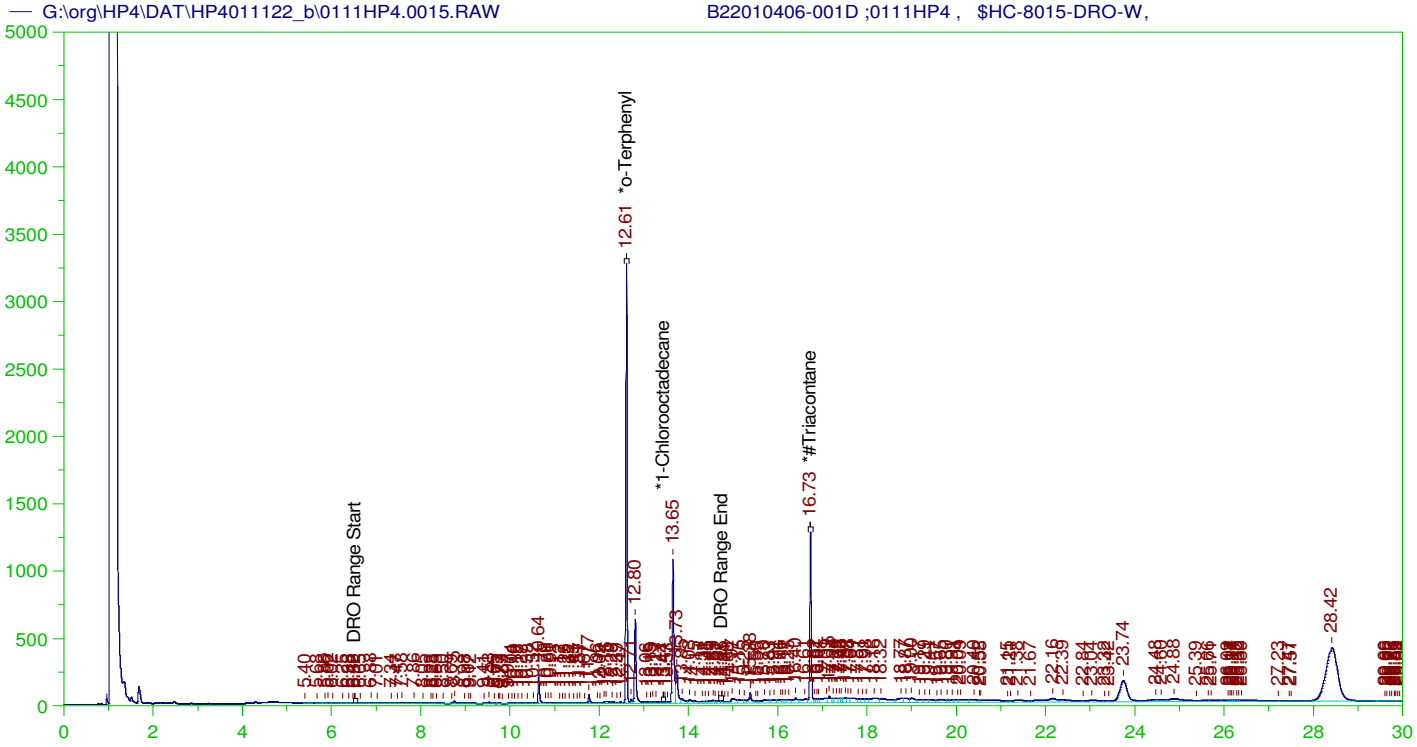
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.606	.19	.187	98.38	-
*1-Chlorooctadecane	13.439	.19	.	.02	-
*#Triacontane	16.732	.19	.112	58.57	-

DRO Area:608550.8 DRO Amount: 1.973127E-02
TEH Area:2422207 TEH Amount: 7.853614E-02

ERH2368 (RHMW04) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0015.RAW B22010406-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010406-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0015.RAW
Date & Time Acquired: 1/11/2022 6:15:33 PM
Method File: G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

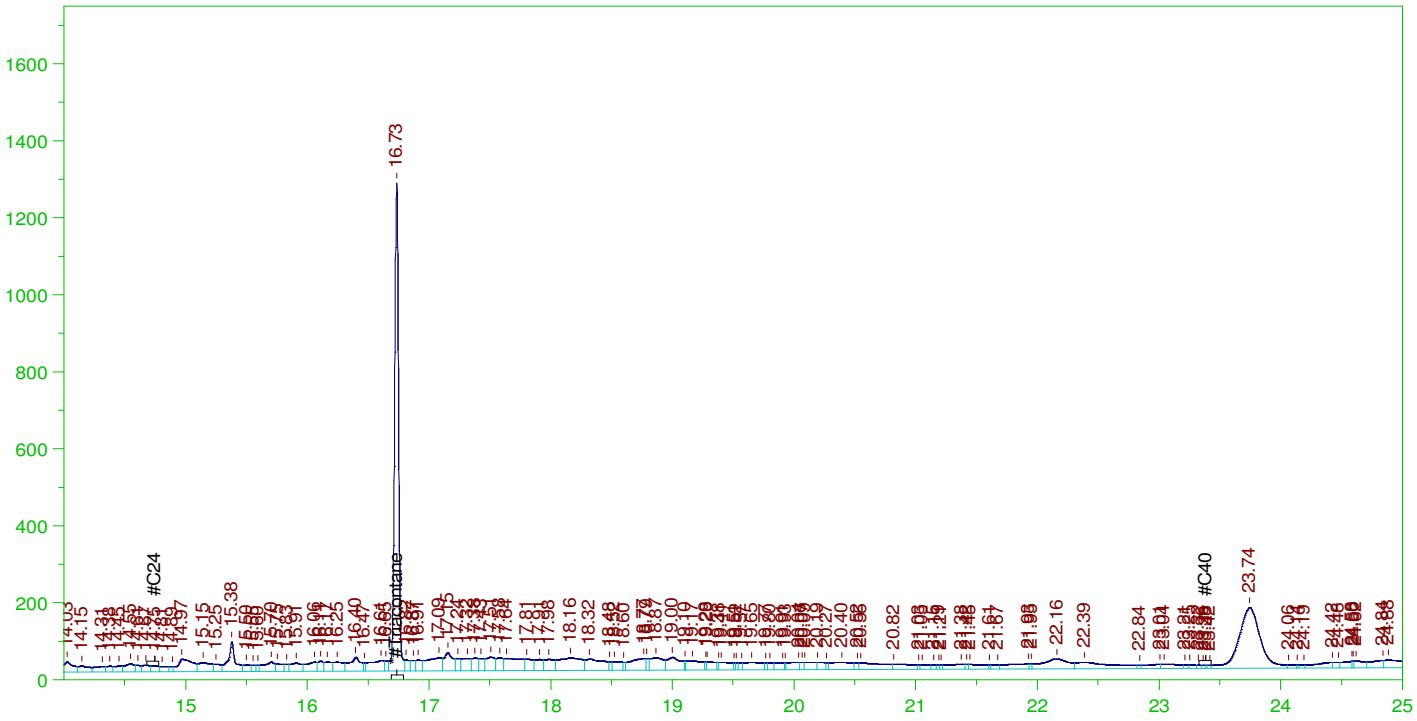
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.608	.194	.171	88.09	-
*1-Chlorooctadecane	13.438	.194	.001	.43	-
*#Triacontane	16.735	.194	.112	57.54	-

DRO Area:8382604 DRO Amount: 0.2770699
TEH Area:3.055416E+07 TEH Amount: 1.009906

ERH2368 (RHMW04) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0015.RAW B22010406-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010406-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0015.RAW
Date & Time Acquired: 1/11/2022 6:15:33 PM
Method File: G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

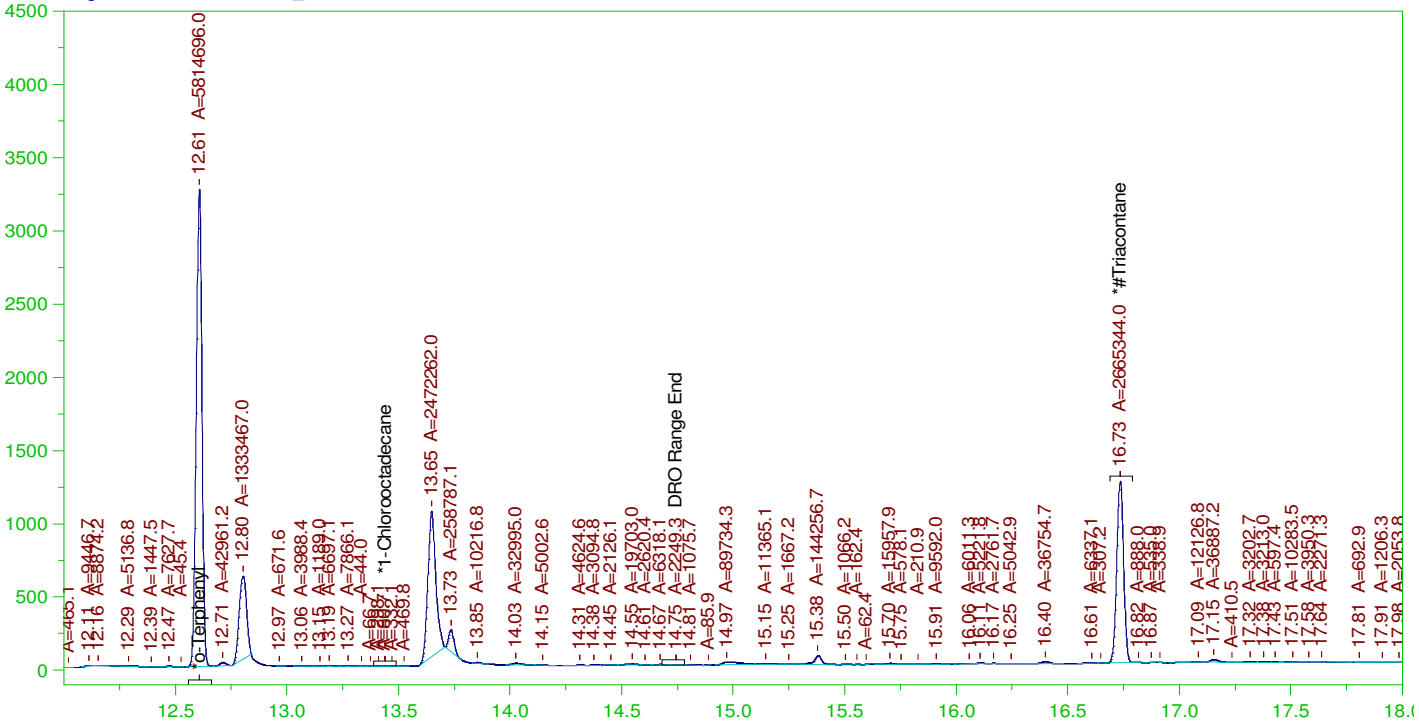
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.735	.485	.112	23.02	-

RRO Area:1.047053E+07 RRO AMOUNT: 0.4144211

ERH2368 (RHMW04) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0015.RAW B22010406-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010406-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0015.RAW
Date & Time Acquired: 1/11/2022 6:15:33 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

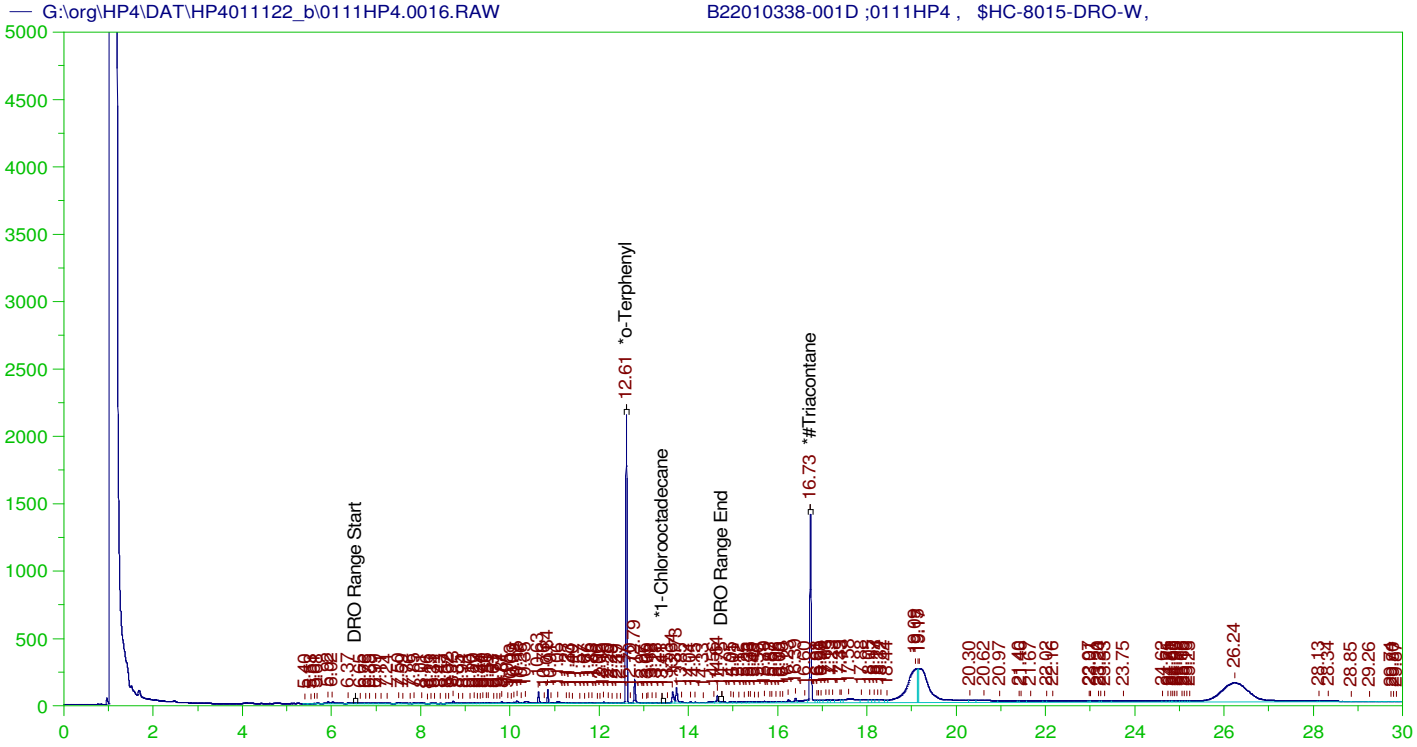
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.608	.194	.169	87.26	-
*1-Chlorooctadecane	29.936	.194	.	.	-
*#Triacontane	16.735	.194	.104	53.36	-

DRO Area:5369909 DRO Amount: 0.1774914
TEH Area:1.579196E+07 TEH Amount: 0.5219709

ERH2364 (RHMW06) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0016.RAW B22010338-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010338-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0016.RAW
Date & Time Acquired: 1/11/2022 7:00:35 PM
Method File: G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

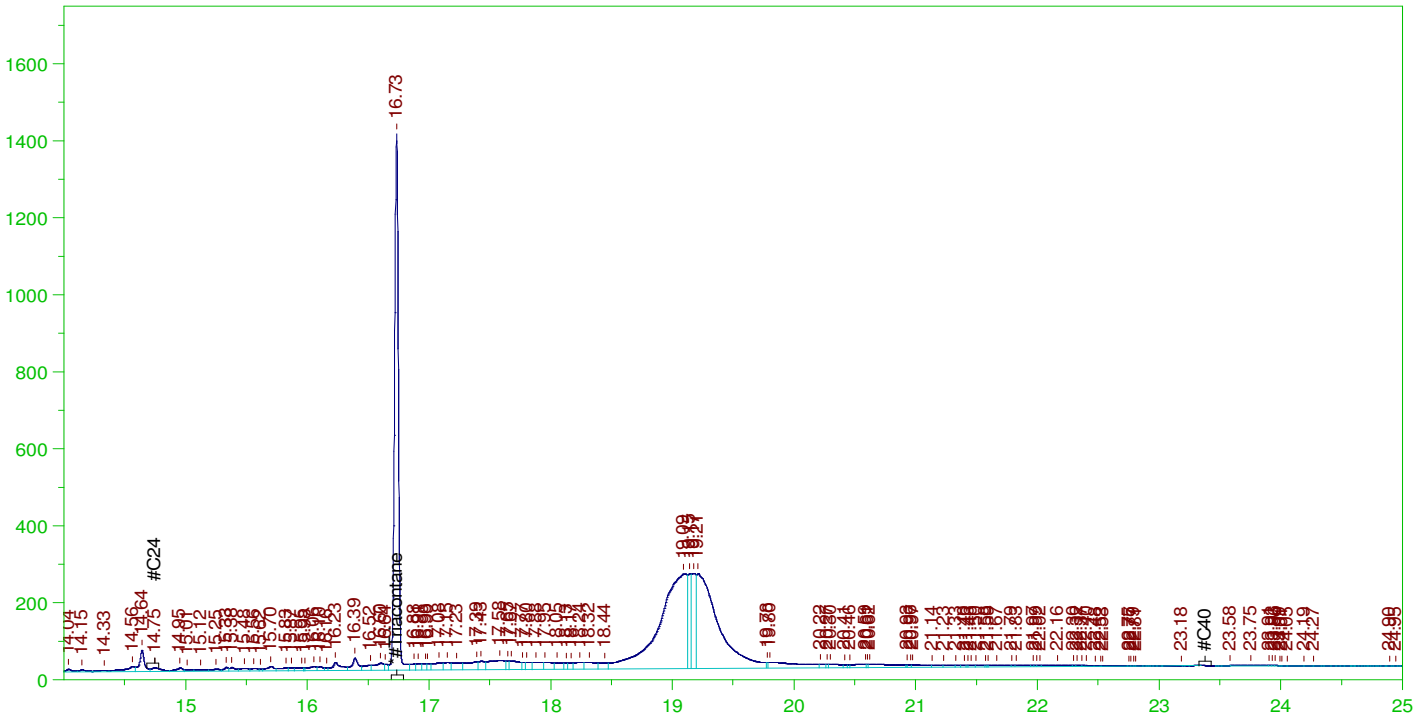
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.606	.19	.106	55.44	-
*1-Chlorooctadecane	13.406	.19	.	.04	-
*#Triacontane	16.734	.19	.117	61.56	-

DRO Area:2791844 DRO Amount: 9.052102E-02
TEH Area:2.430062E+07 TEH Amount: 0.7879083

ERH2364 (RHMW06) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0016.RAW B22010338-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010338-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0016.RAW
Date & Time Acquired: 1/11/2022 7:00:35 PM
Method File: G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

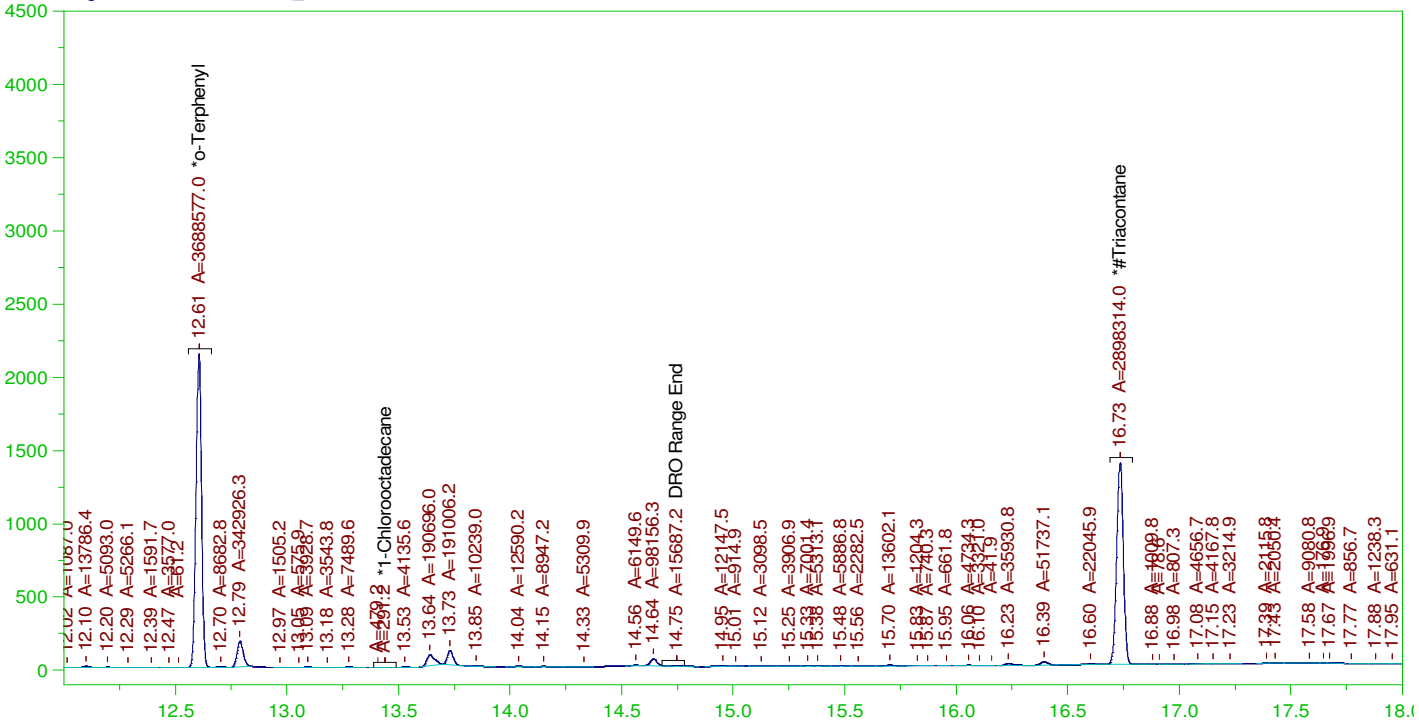
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.734	.476	.116	24.4	-

RRO Area:1.188735E+07 RRO AMOUNT: 0.4615364

ERH2364 (RHMW06) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0016.RAW B22010338-001D ;0111HP4 , $HC-8015-DRO-W,



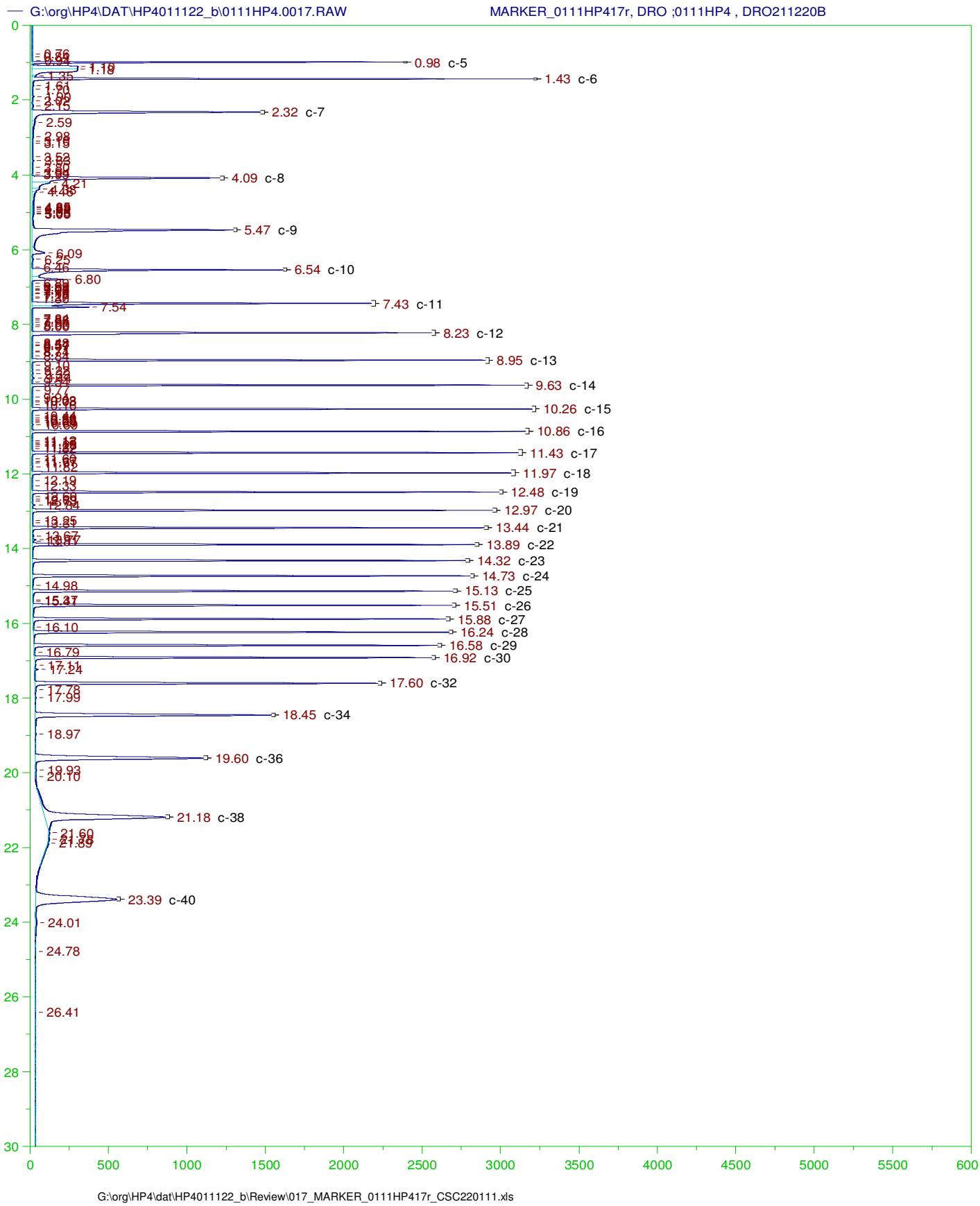
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

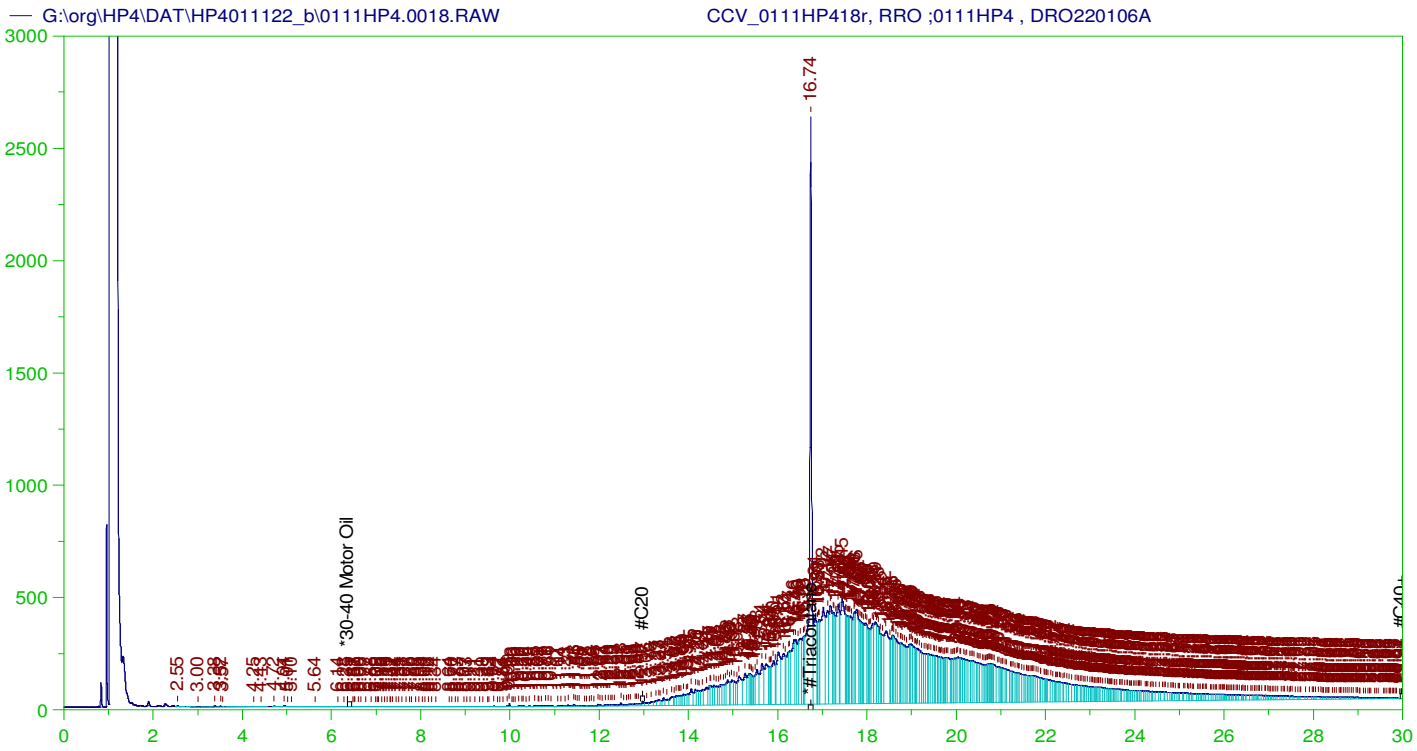
Sample Name: B22010338-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0016.RAW
Date & Time Acquired: 1/11/2022 7:00:35 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.606	.19	.105	55.35	-
*1-Chlorooctadecane	29.972	.19	.	.	-
*#Triacontane	16.734	.19	.111	58.03	-

DRO Area:2132483 DRO Amount: 6.914231E-02
TEH Area:8939788 TEH Amount: 0.2898582


G:\org\HP4\DAT\HP4011122_b\0111HP4.0017.RAW
MARKER_0111HP417r, DRO ;0111HP4 , DRO211220B
0.98 c-5
1.43 c-6
2.32 c-7
4.09 c-8
5.47 c-9
6.54 c-10
7.43 c-11
8.23 c-12
8.95 c-13
9.63 c-14
10.26 c-15
10.86 c-16
11.43 c-17
11.97 c-18
12.48 c-19
12.97 c-20
13.44 c-21
13.89 c-22
14.32 c-23
14.73 c-24
15.13 c-25
15.51 c-26
15.88 c-27
16.24 c-28
16.58 c-29
16.92 c-30
17.60 c-32
18.45 c-34
19.60 c-36
21.18 c-38
23.39 c-40
G:\org\HP4\dat\HP4011122_b\Review\017_MARKER_0111HP417r_CSC220111.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP418r, RRO ;0111HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0018.RAW
Date & Time Acquired: 1/11/2022 8:30:24 PM
Method File: G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.741	500.	342.054	68.41	-

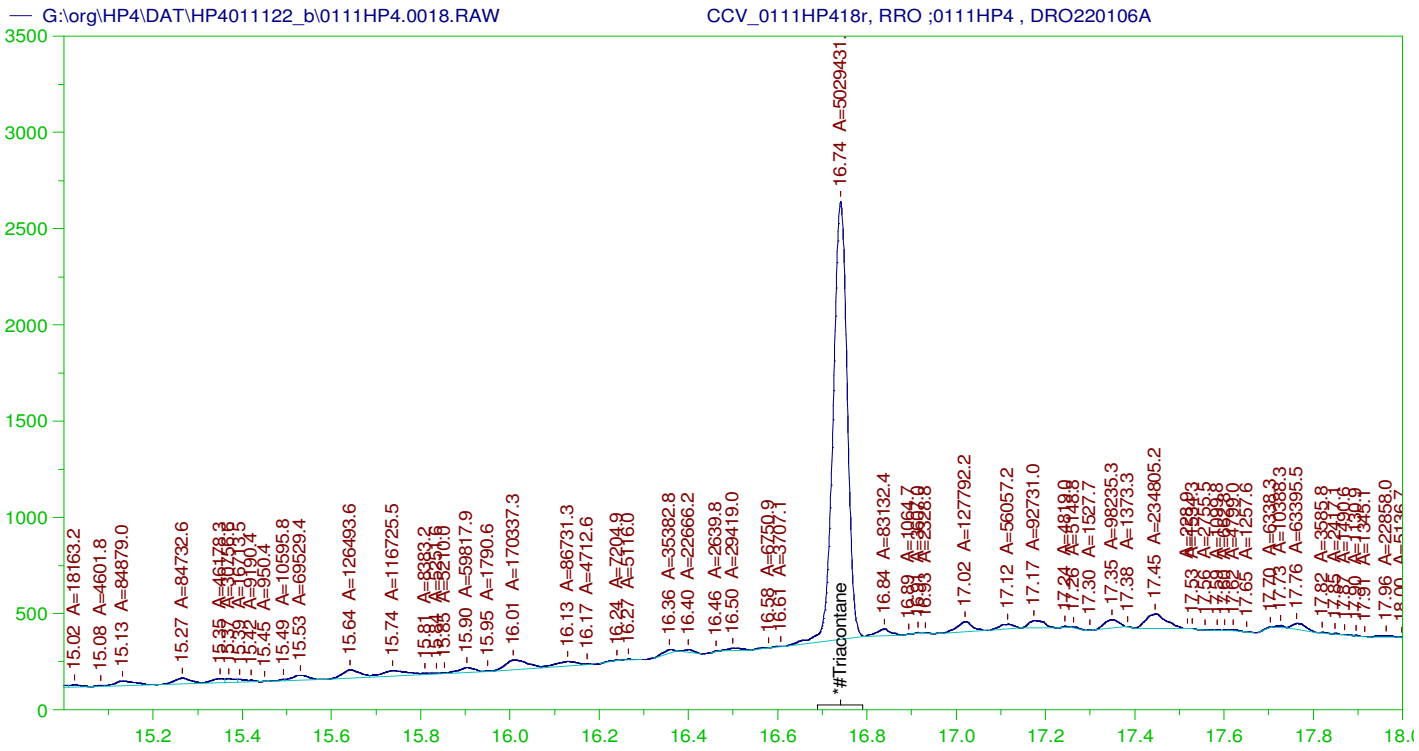
~~RRO~~ TEH (Oil Range) Area:1.167054E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4757.744

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0018.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.029	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.741	200.	342.054	171.03	75-125

AMN 02/01/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP418r, RRO ;0111HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0018.RAW
Date & Time Acquired: 1/11/2022 8:30:24 PM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

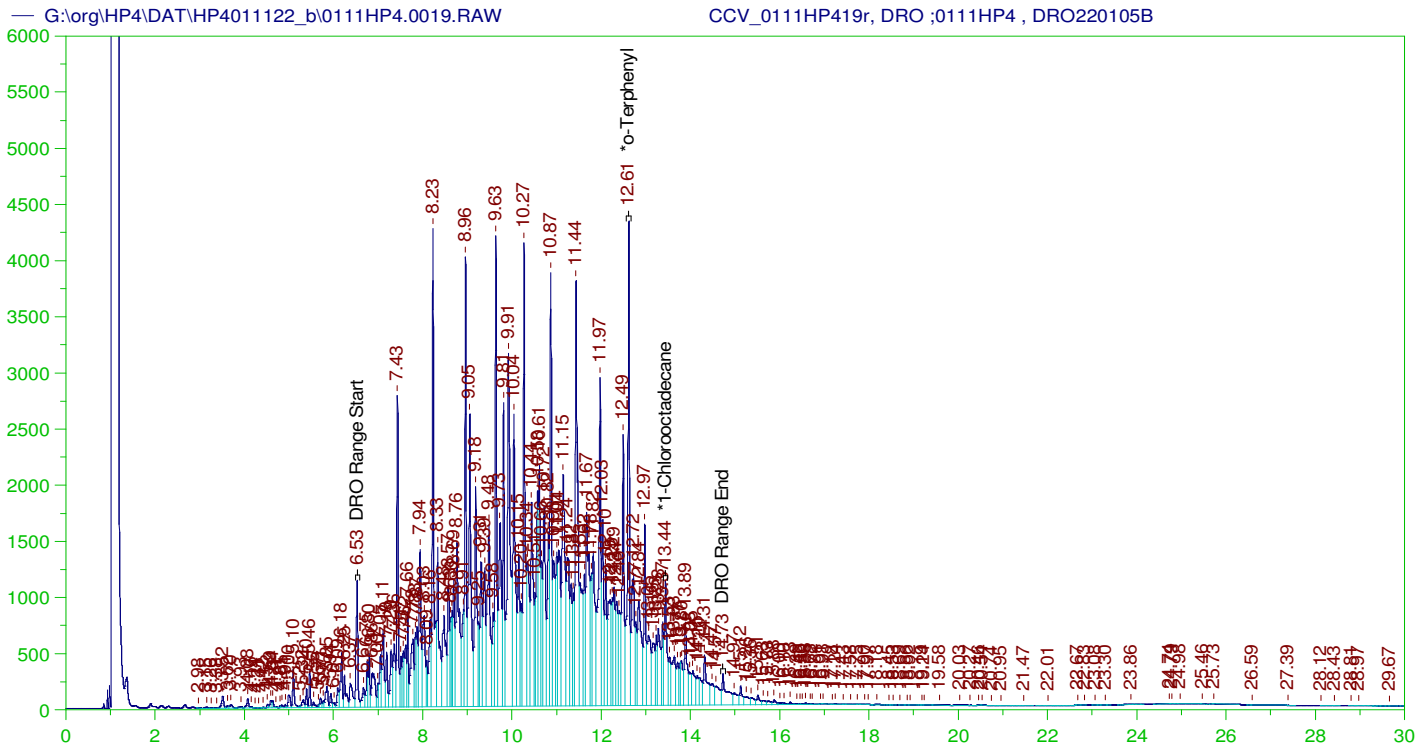
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.741	500.	201.388	40.28	-

RRO Area:3283540 RRO AMOUNT: 133.8605

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0018.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.029	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.741	200.	201.388	100.69	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0111HP419r, DRO ;0111HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0019.RAW
Date & Time Acquired: 1/11/2022 9:15:12 PM
Method File: G:\Org\HP4\methods\DC_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.613	200.	347.483	173.74	-
*1-Chlorooctadecane	13.439	200.	128.311	64.16	-

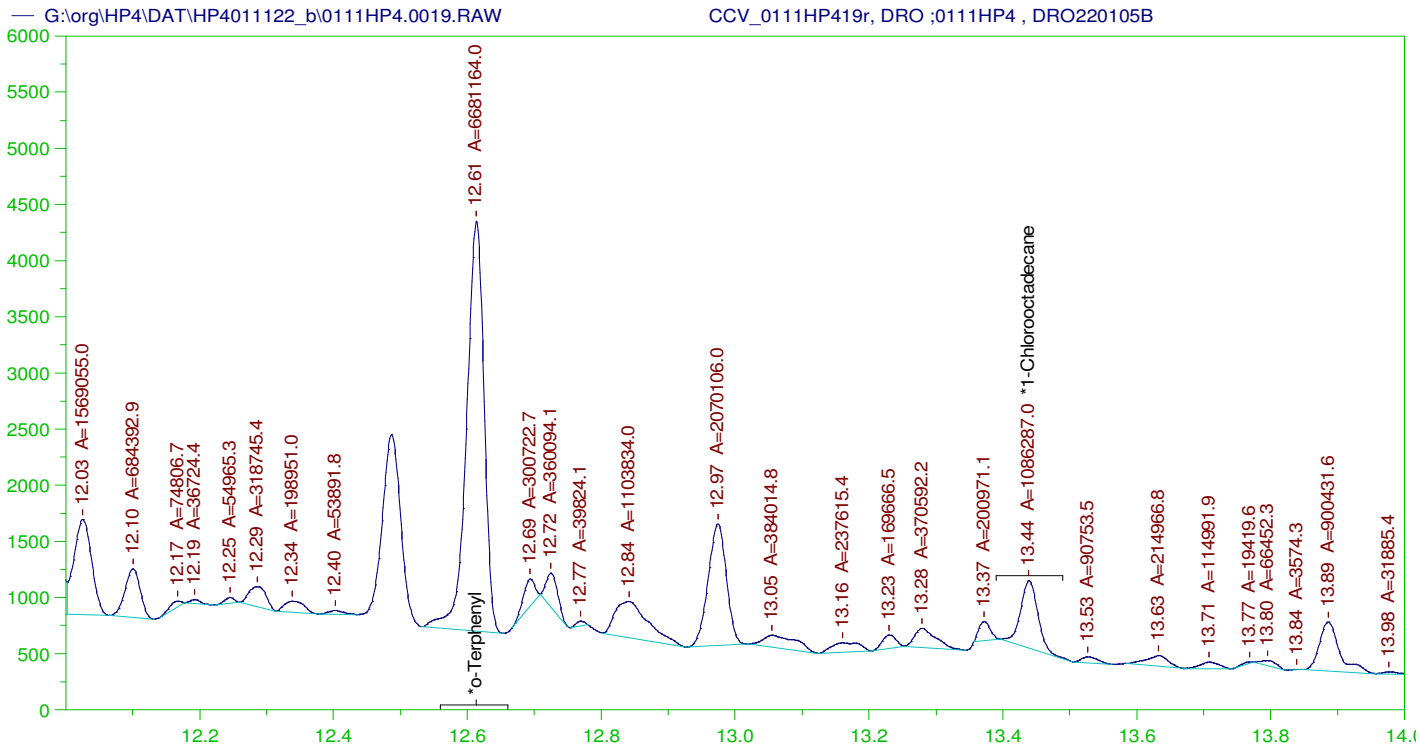
DRO Area:4.209023E+08 DRO Amount: 14329.43
TEH Area:4.353793E+08 TEH Amount: 14822.29

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0019.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14822.29	98.82	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.613	200.	347.483	173.74	85-115
*1-Chlorooctadecane	13.439	200.	128.311	64.16	85-115

G:\org\HP4\dat\HP4011122_b\Review\019_CCV_0111HP419r_DC_8015-C24-OK-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0111HP419r, DRO ;0111HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0019.RAW
Date & Time Acquired: 1/11/2022 9:15:12 PM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

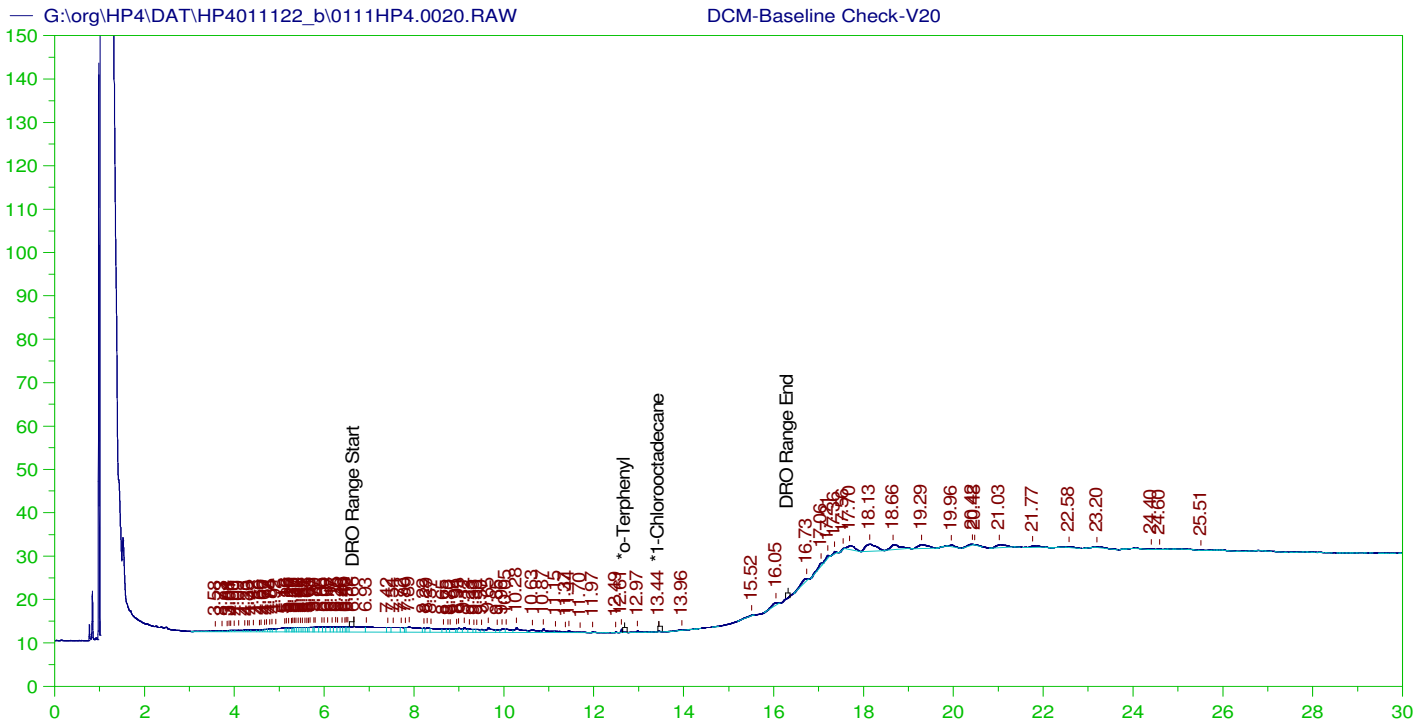
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.613	200.	200.517	100.26	-
*1-Chlorooctadecane	13.439	200.	32.602	16.3	-

DRO Area:1.819202E+08 DRO Amount: 6193.392
TEH Area:1.917806E+08 TEH Amount: 6529.084

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0019.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	6529.08	43.53	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.613	200.	200.517	100.26	85-115
*1-Chlorooctadecane	13.439	200.	32.602	16.3	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V20
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0020.RAW
Date & Time Acquired: 1/11/2022 9:59:58 PM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

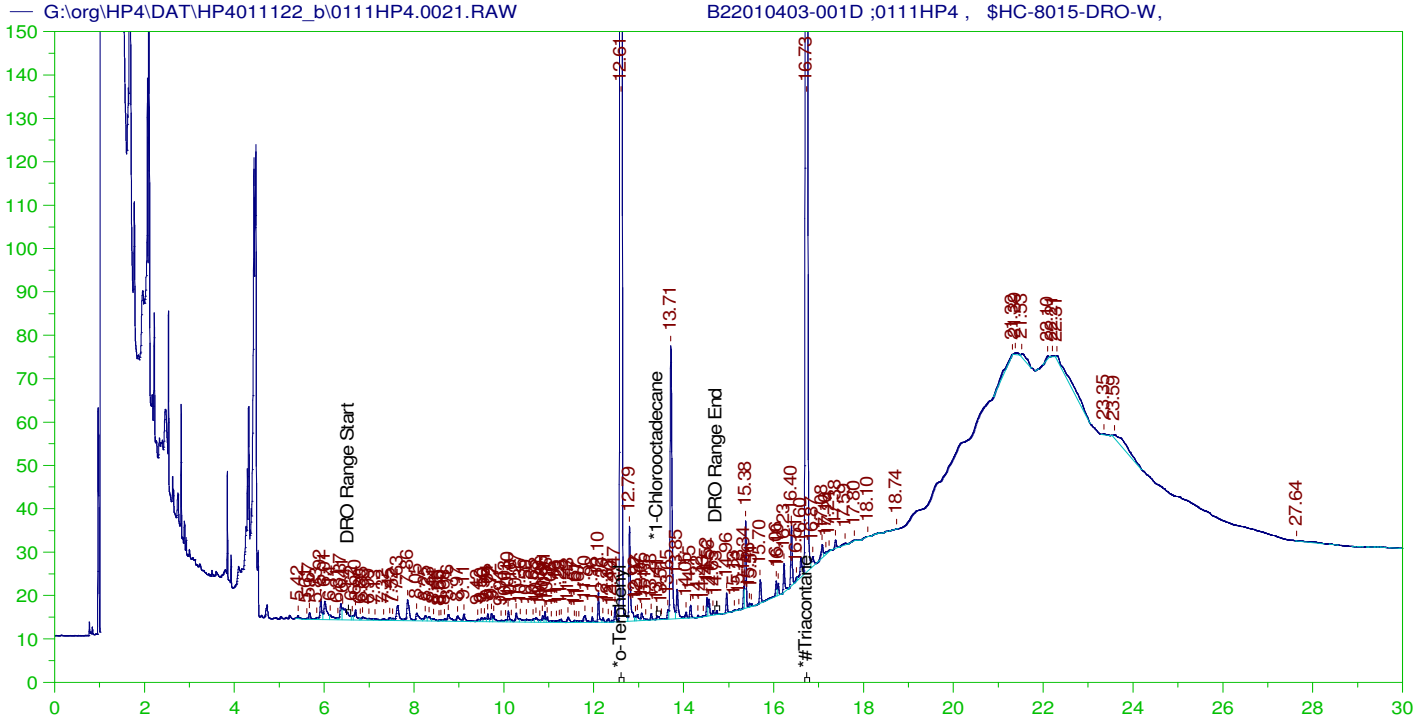
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.973	200.	.	-
*1-Chlorooctadecane	13.442	200.	.019	.01 -

DRO Area:243777.8 DRO Amount: 8.299305
TEH Area:505154.6 TEH Amount: 17.19776

ERH2342 (RHMW15 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0021.RAW B22010403-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010403-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0021.RAW
Date & Time Acquired: 1/11/2022 10:44:45 PM
Method File: G:\Org\HP4\methods\DR_8015-C24T-OJ-L0.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OJ-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

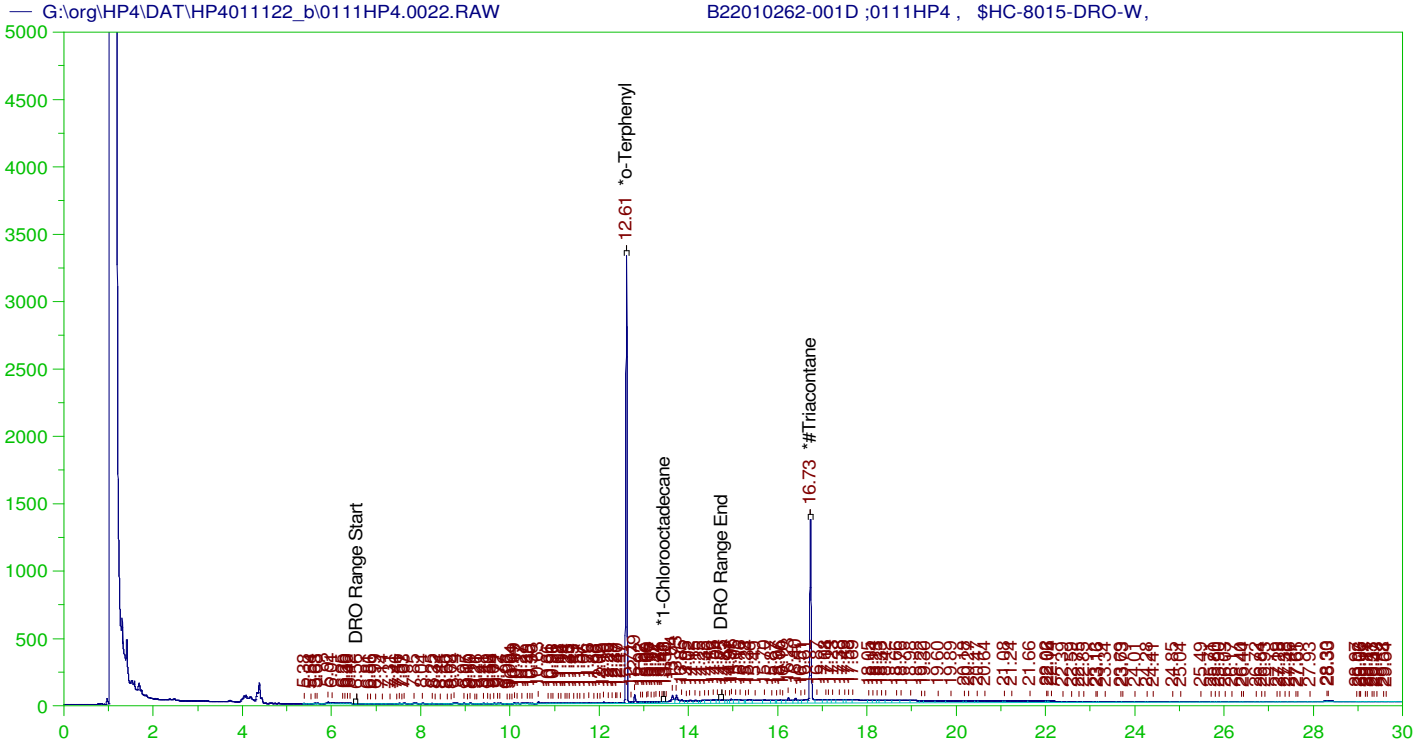
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.8

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.194	.194	99.69	-
*1-Chlorooctadecane	13.406	.194	.	.05	-
*#Triacontane	16.734	.194	.11	56.91	-

DRO Area:515594.8 DRO Amount: 1.704193E-02
TEH Area:908503.4 TEH Amount: 3.002873E-02

ERH2328 (RHMW03) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0022.RAW B22010262-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010262-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0022.RAW
Date & Time Acquired: 1/11/2022 11:29:26 PM
Method File: G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

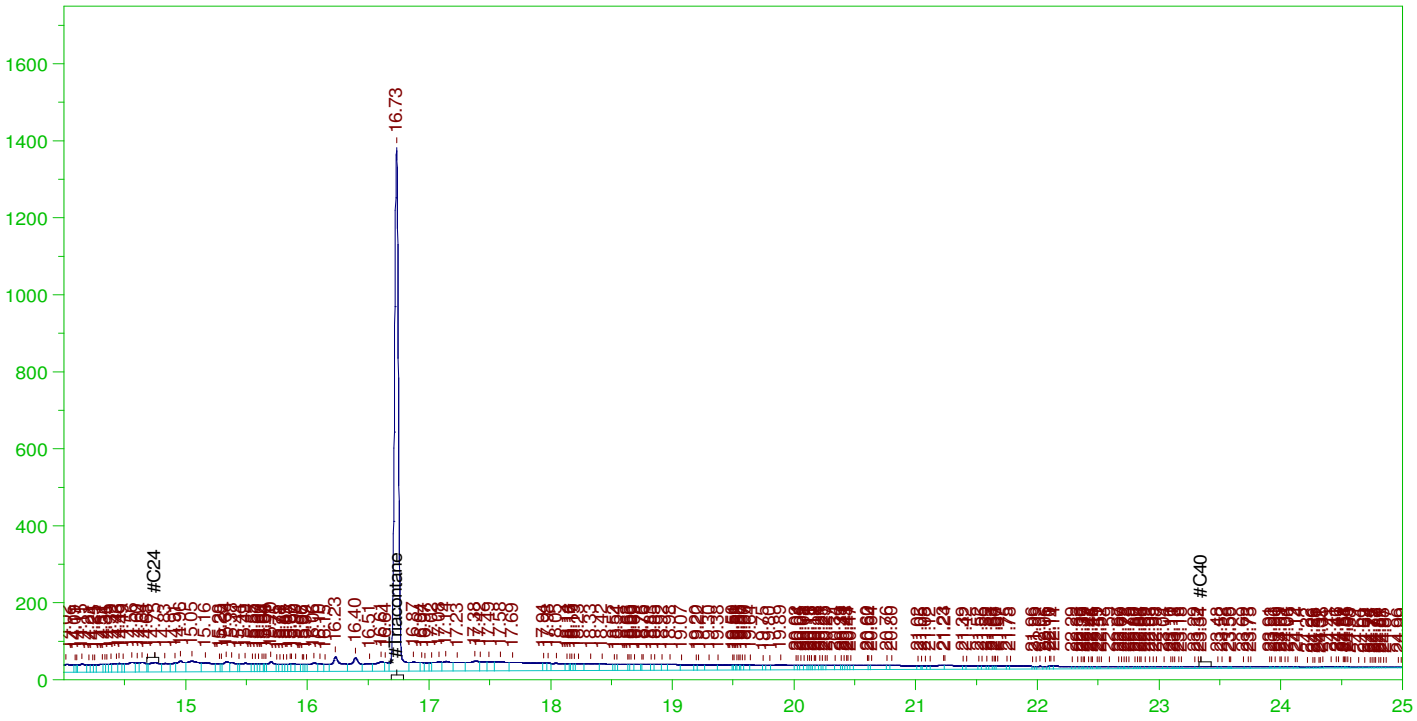
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.194	.168	86.77	-
*1-Chlorooctadecane	13.46	.194	.001	.59	-
*#Triacontane	16.733	.194	.12	61.97	-

DRO Area:2902927 DRO Amount: 9.595034E-02
TEH Area:1.283987E+07 TEH Amount: 0.4243959

ERH2328 (RHMW03) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0022.RAW B22010262-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010262-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0022.RAW
Date & Time Acquired: 1/11/2022 11:29:26 PM
Method File: G:\Org\HP4\Methods\D3_ORO-011122-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

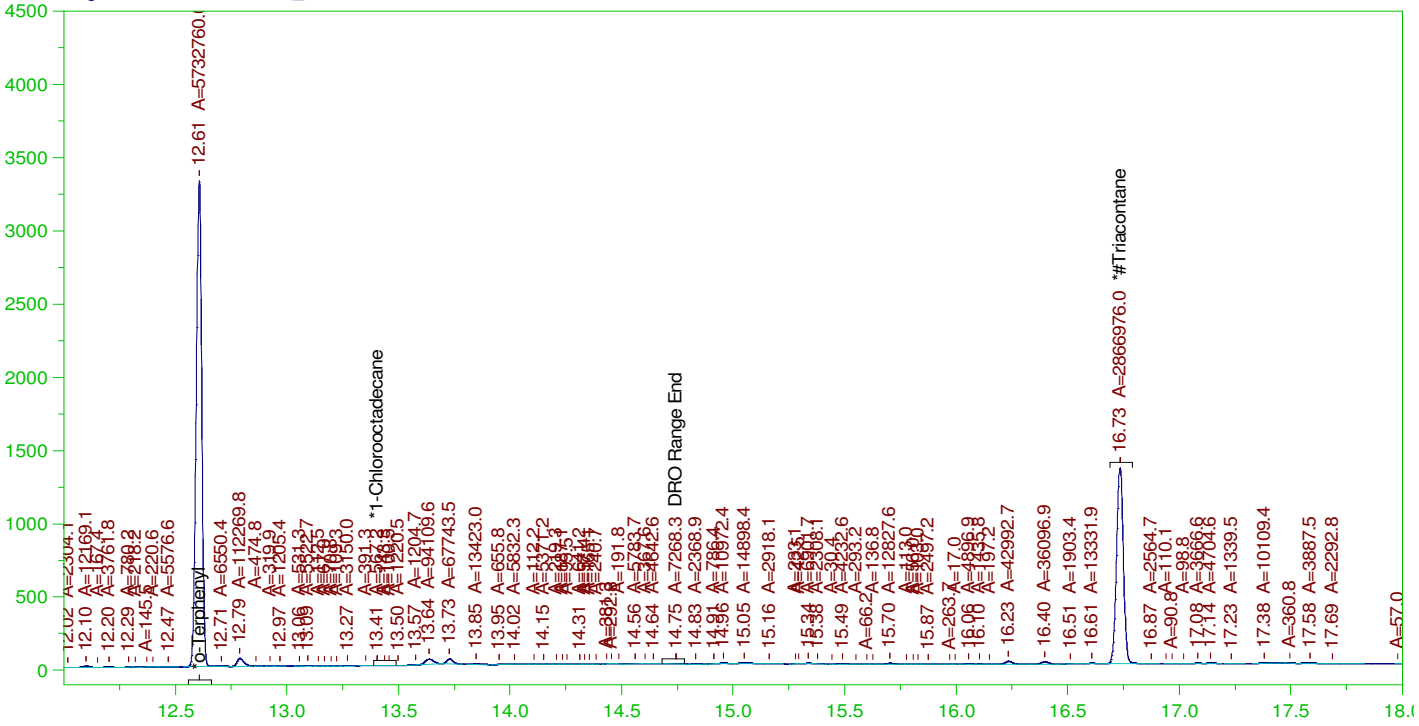
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.733	.485	.12	24.67	-

RRO Area:7564317 RRO AMOUNT: 0.2993937

ERH2328 (RHMW03) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0022.RAW B22010262-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010262-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0022.RAW
Date & Time Acquired: 1/11/2022 11:29:26 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

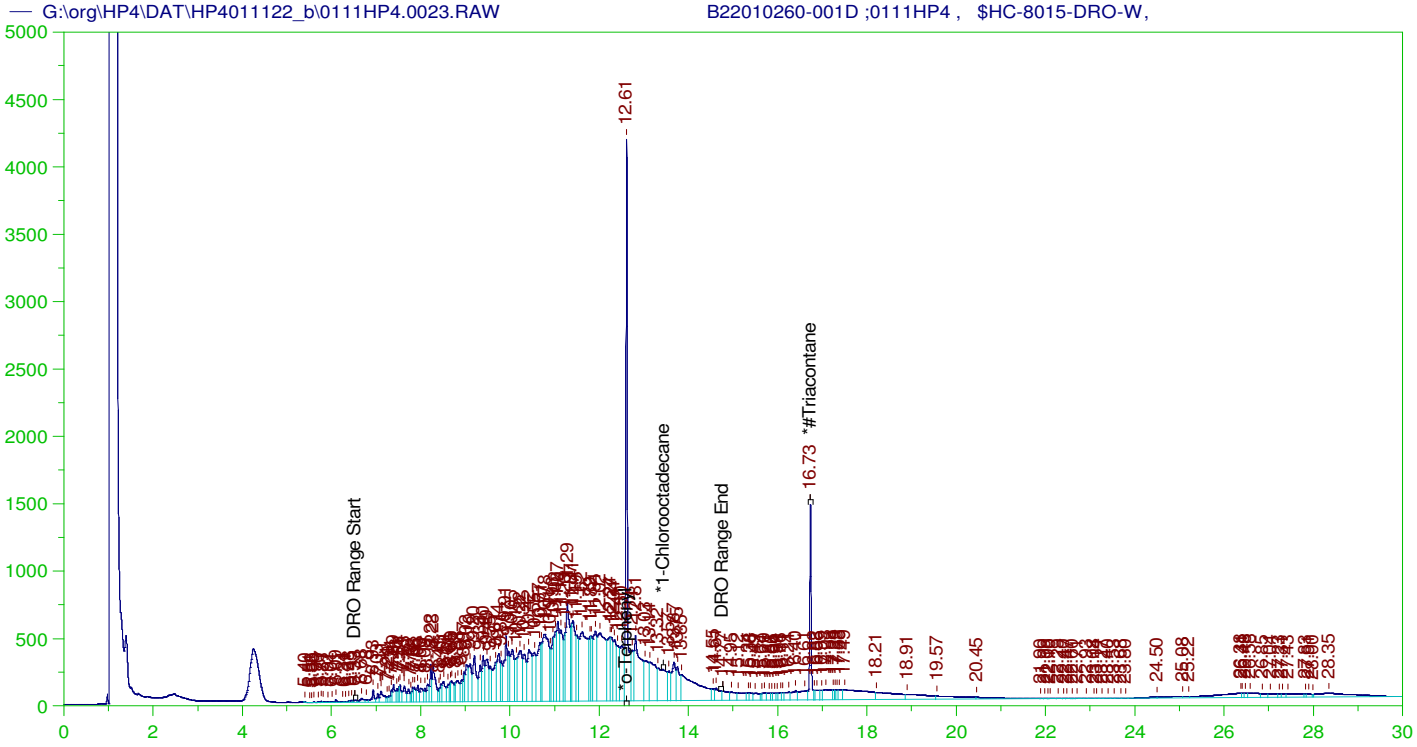
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.194	.167	86.03	-
*1-Chlorooctadecane	13.406	.194	.	.01	-
*#Triacontane	16.733	.194	.111	57.4	-

DRO Area:611296.7 DRO Amount: 2.020517E-02
TEH Area:2598495 TEH Amount: 8.588795E-02

ERH2326 (RHMW02) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0023.RAW B22010260-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010260-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0023.RAW
Date & Time Acquired: 1/12/2022 12:14:12 AM
Method File: G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

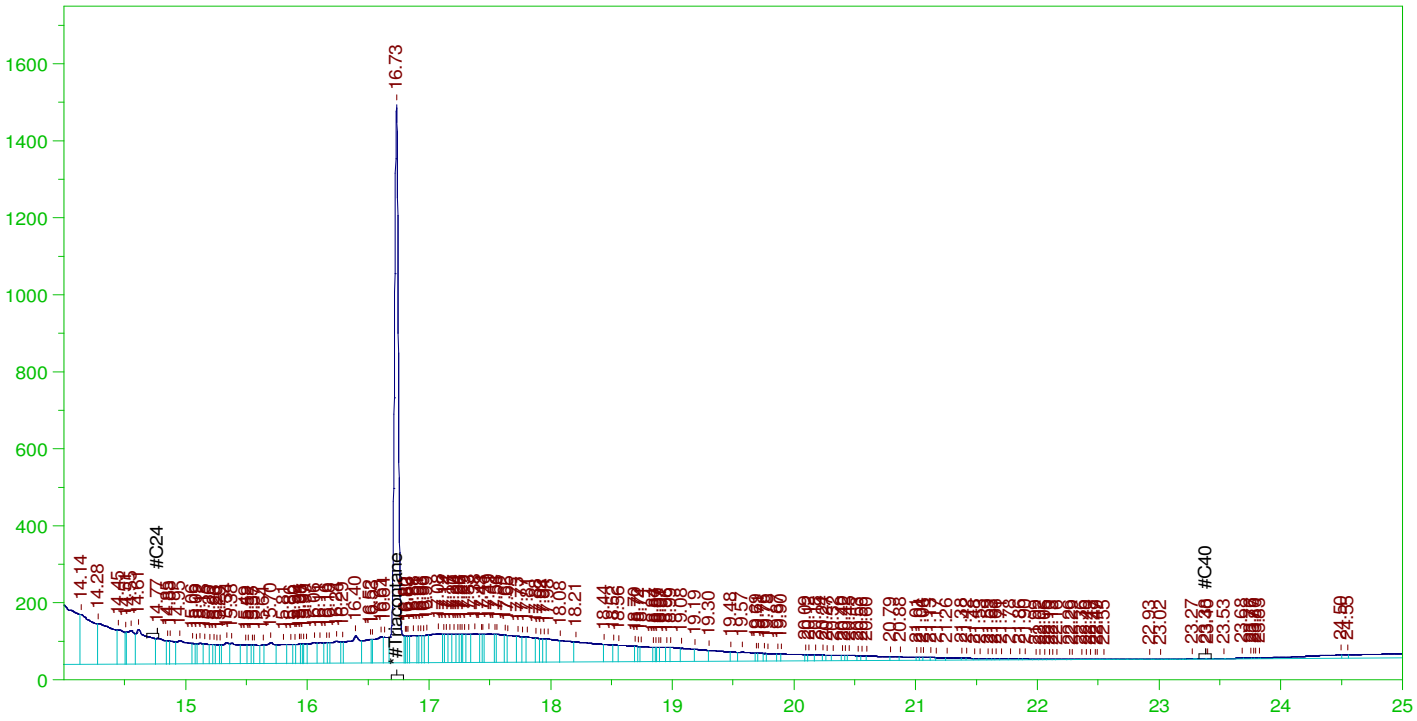
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.61	.198	.295	149.12	-
*1-Chlorooctadecane	28.349	.198	.	.	-
*#Triacontane	16.733	.198	.135	68.4	-

DRO Area:1.249496E+08 DRO Amount: 4.211734
TEH Area:1.476824E+08 TEH Amount: 4.978

ERH2326 (RHMW02) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0023.RAW B22010260-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010260-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0023.RAW
Date & Time Acquired: 1/12/2022 12:14:12 AM
Method File: G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

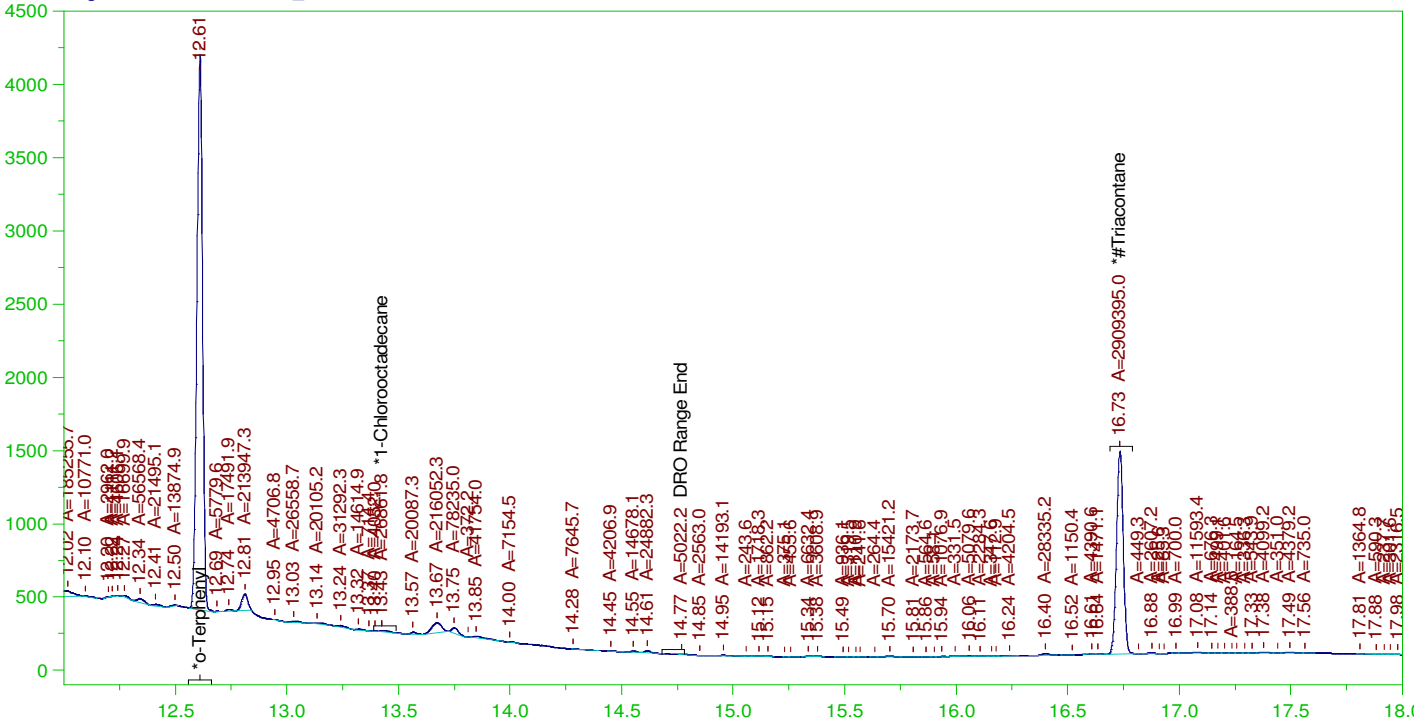
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.733	.495	.135	27.31	-

RRO Area:1.657284E+07 RRO AMOUNT: 0.668938

ERH2326 (RHMW02) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0023.RAW B22010260-001D ;0111HP4 , $HC-8015-DRO-W,



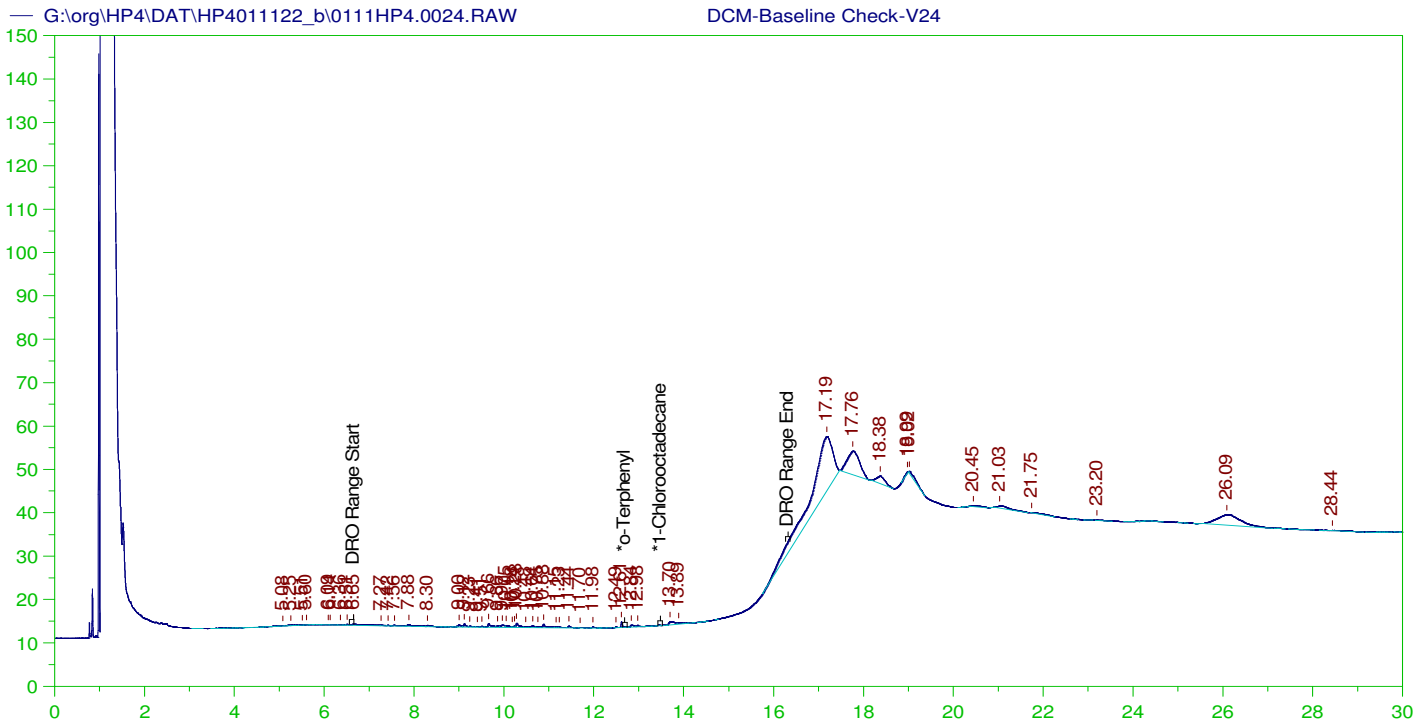
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010260-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0023.RAW
Date & Time Acquired: 1/12/2022 12:14:12 AM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.61	.198	.199	100.67	-
*1-Chlorooctadecane	13.426	.198	.001	.4	-
*#Triacontane	16.733	.198	.115	58.25	-

DRO Area:2.108566E+07 DRO Amount: 0.7107443
TEH Area:2.783778E+07 TEH Amount: 0.9383411



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V24
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0024.RAW
Date & Time Acquired: 1/12/2022 12:58:57 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

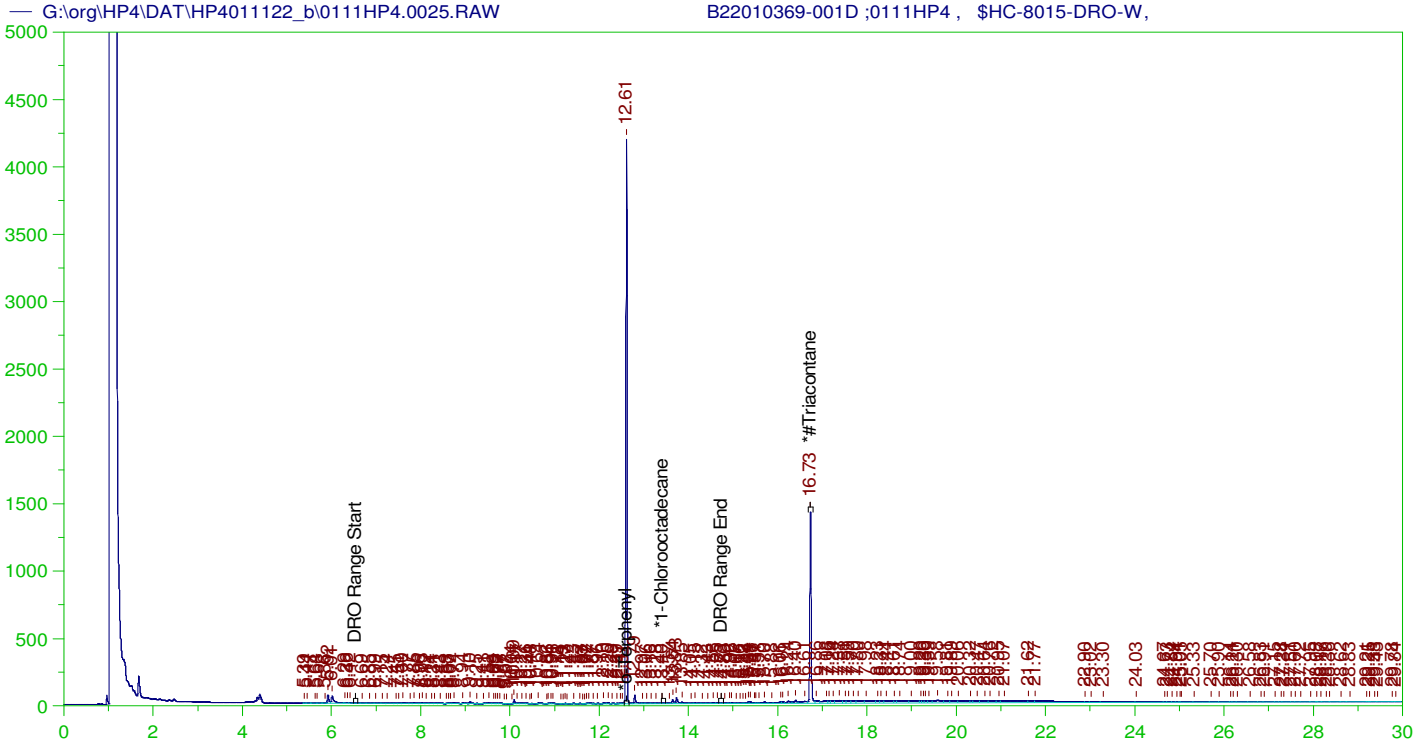
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.967	200.	.	.	-
*1-Chlorooctadecane	29.967	200.	.	.	-

DRO Area:76110.3 DRO Amount: 2.591141
TEH Area:776038.9 TEH Amount: 26.4199

ERH2330 (RHMW05 w/MS/MSD vols) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0025.RAW B22010369-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010369-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0025.RAW
Date & Time Acquired: 1/12/2022 1:43:45 AM
Method File: G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

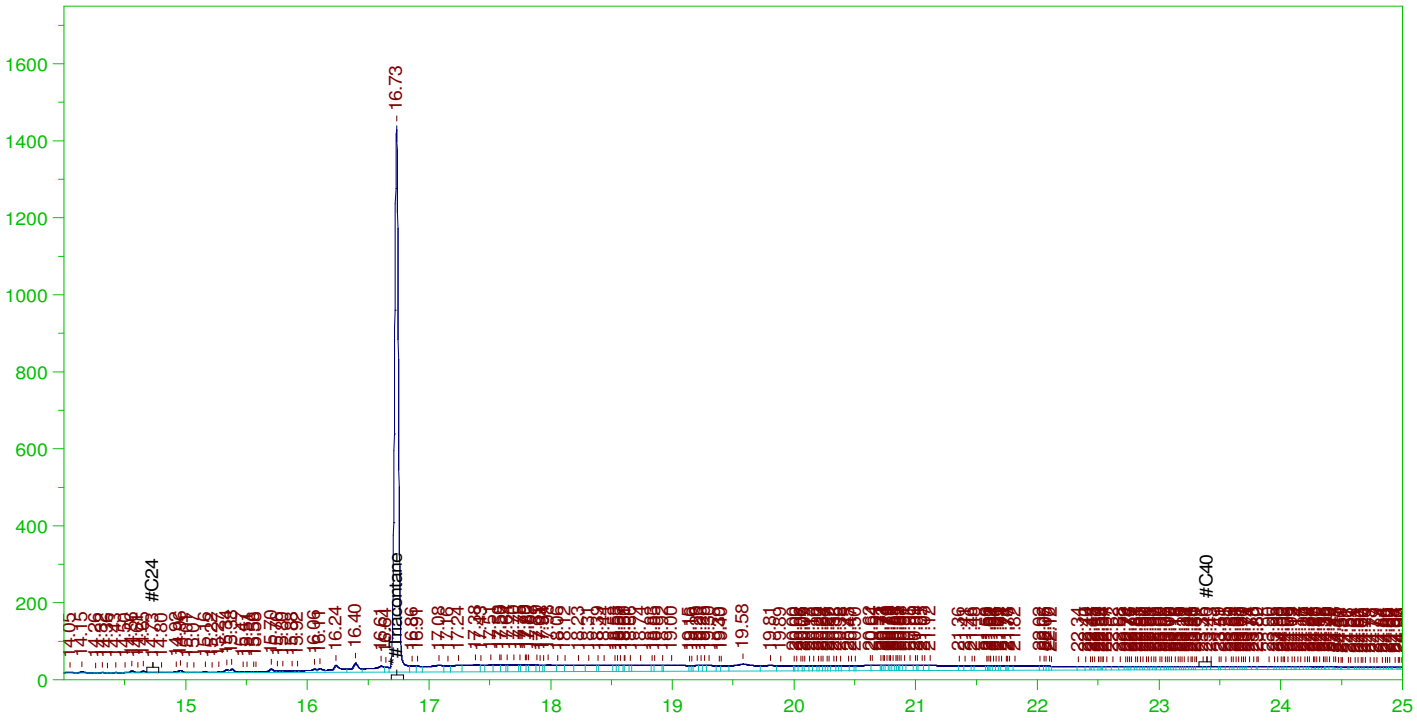
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.608	.196	.212	107.98	-
*1-Chlorooctadecane	13.404	.196	.	.08	-
*#Triacontane	16.733	.196	.124	63.13	-

DRO Area:1108234 DRO Amount: 3.698953E-02
TEH Area:8843843 TEH Amount: 0.295181

ERH2330 (RHMW05 w/MS/MSD vols) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0025.RAW B22010369-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010369-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0025.RAW
Date & Time Acquired: 1/12/2022 1:43:45 AM
Method File: G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

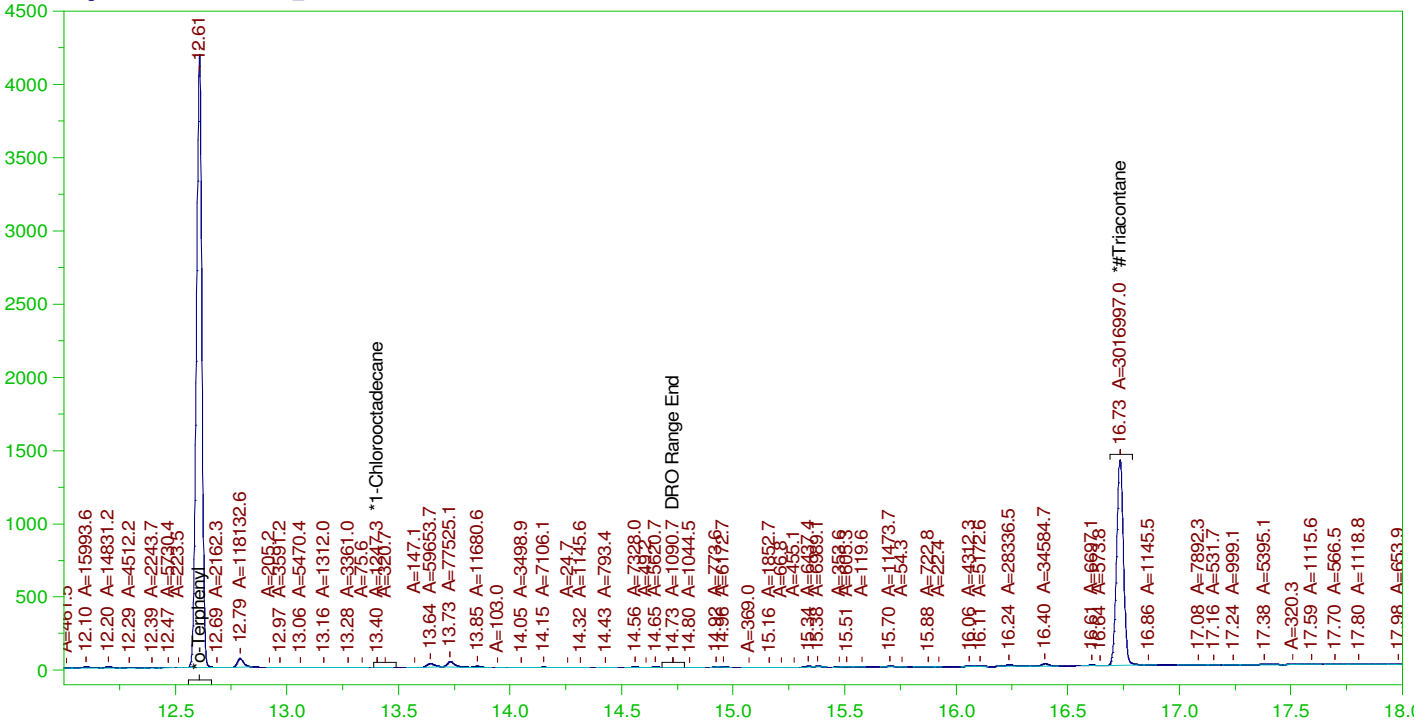
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.733	.49	.124	25.25	-

RRO Area:5830037 RRO AMOUNT: 0.2330136

ERH2330 (RHMW05 w/MS/MSD vols) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0025.RAW B22010369-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

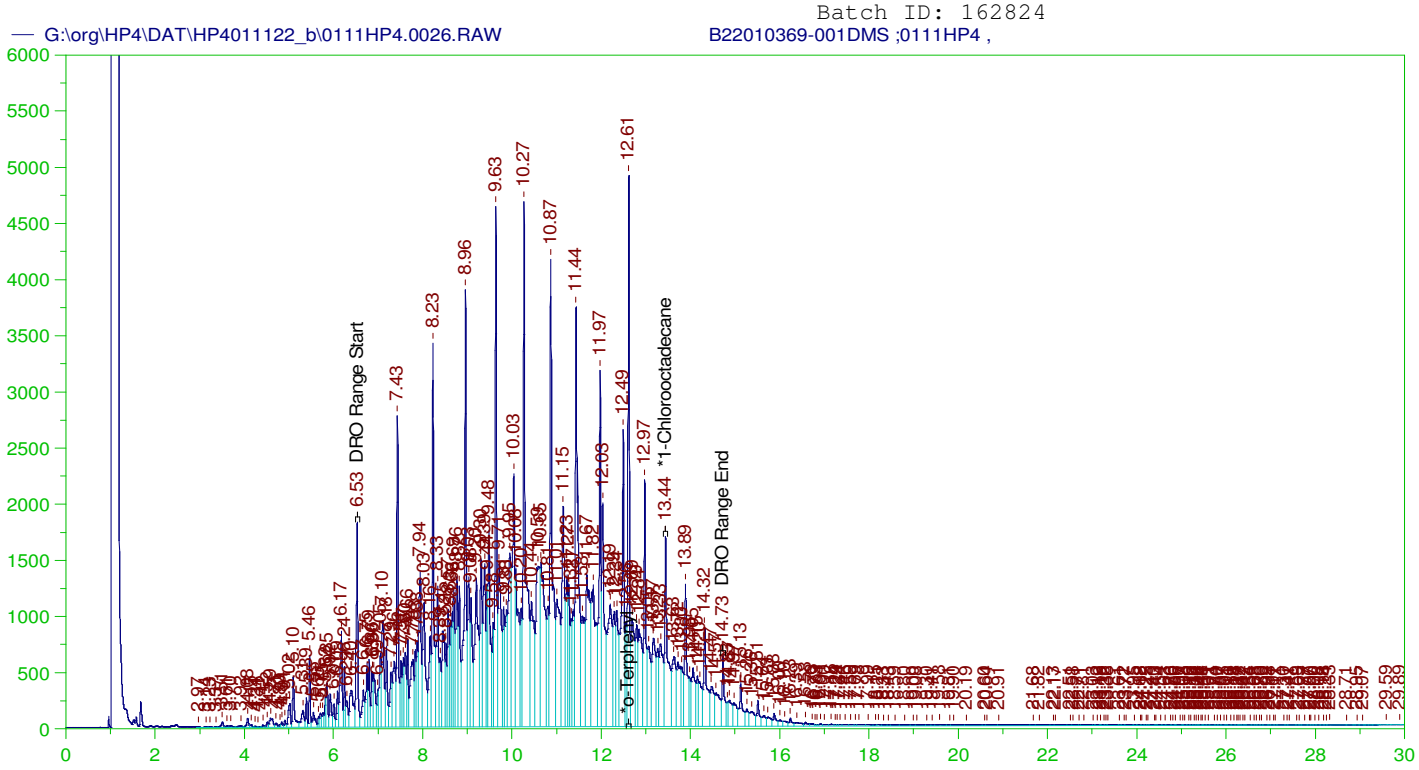
Sample Name: B22010369-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0025.RAW
Date & Time Acquired: 1/12/2022 1:43:45 AM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.608	.196	.211	107.42	-
*1-Chlorooctadecane	13.404	.196	.	.02	-
*#Triacontane	16.733	.196	.118	60.4	-

DRO Area:923957.1 DRO Amount: 3.083892E-02
TEH Area:2320207 TEH Amount: 7.744157E-02

Batch ID: 162824



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

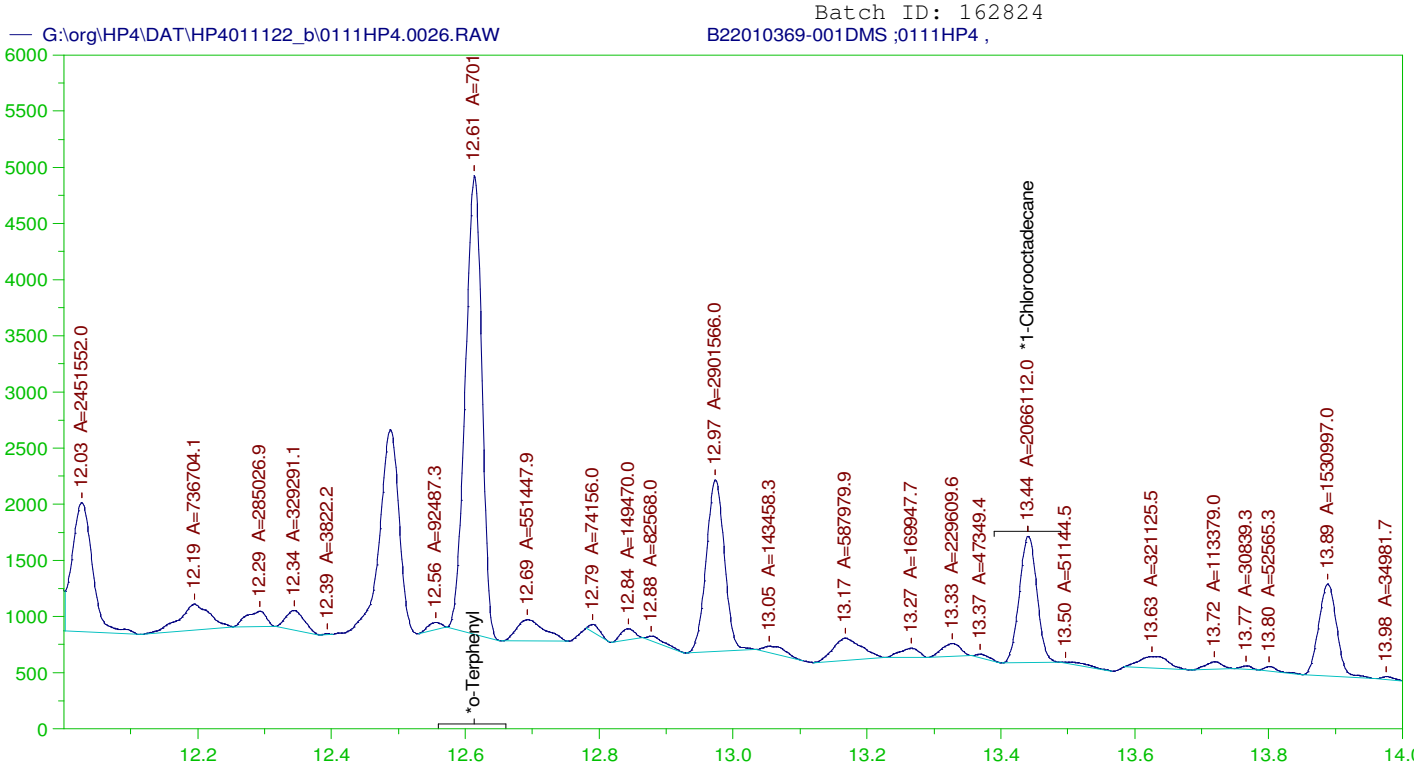
Sample Name: B22010369-001DMS ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0026.RAW
Date & Time Acquired: 1/12/2022 2:28:28 AM
Method File: G:\Org\HP4\methods\D3_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.613	.194	.323	166.34	-
*1-Chlorooctadecane	13.441	.194	.221	113.9	-

DRO Area:4.372057E+08 DRO Amount: 14.45094
TEH Area:4.692084E+08 TEH Amount: 15.50873

Batch ID: 162824



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

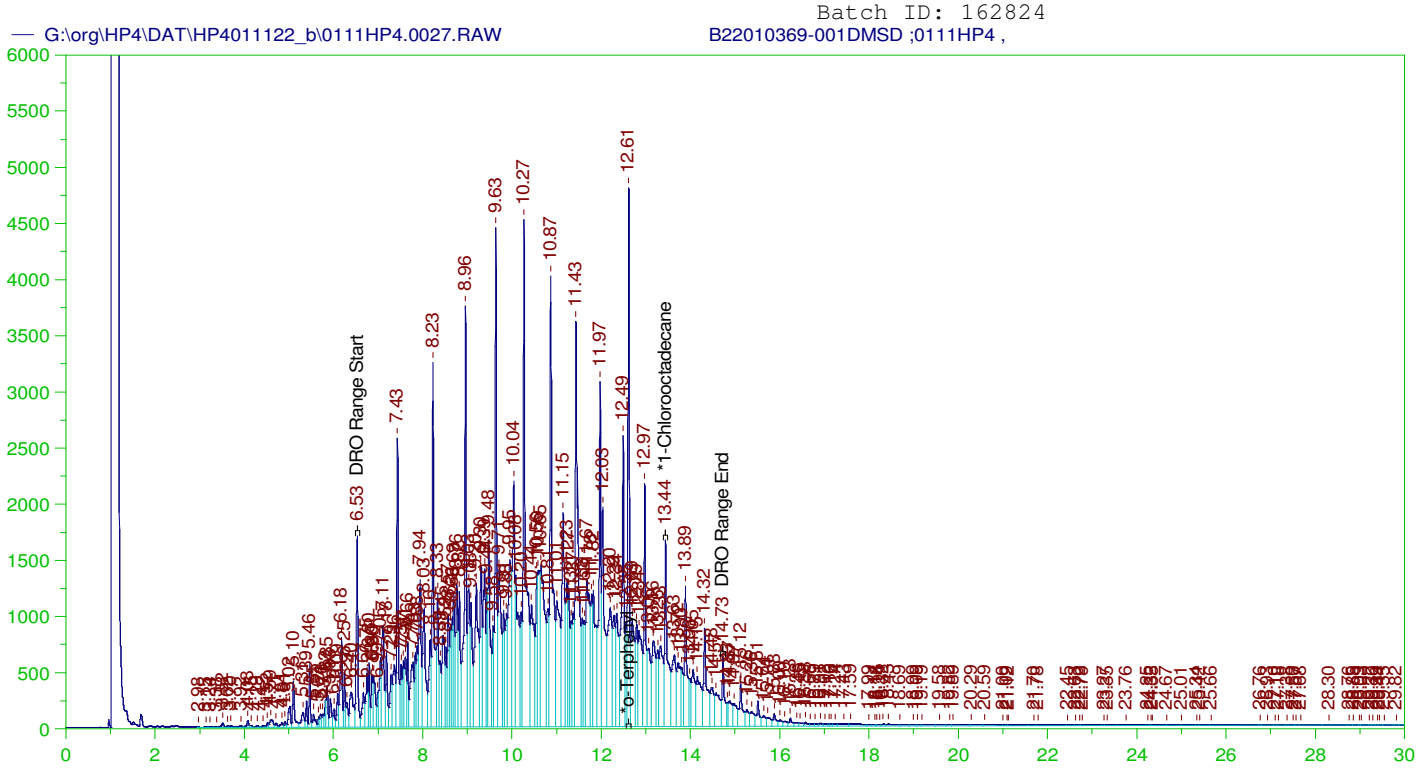
Sample Name: B22010369-001DMS ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0026.RAW
Date & Time Acquired: 1/12/2022 2:28:28 AM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.613	.194	.204	105.27	-
*1-Chlorooctadecane	13.441	.194	.06	31.	-

DRO Area:1.783608E+08 DRO Amount: 5.895353
TEH Area:1.94853E+08 TEH Amount: 6.440468

Batch ID: 162824



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

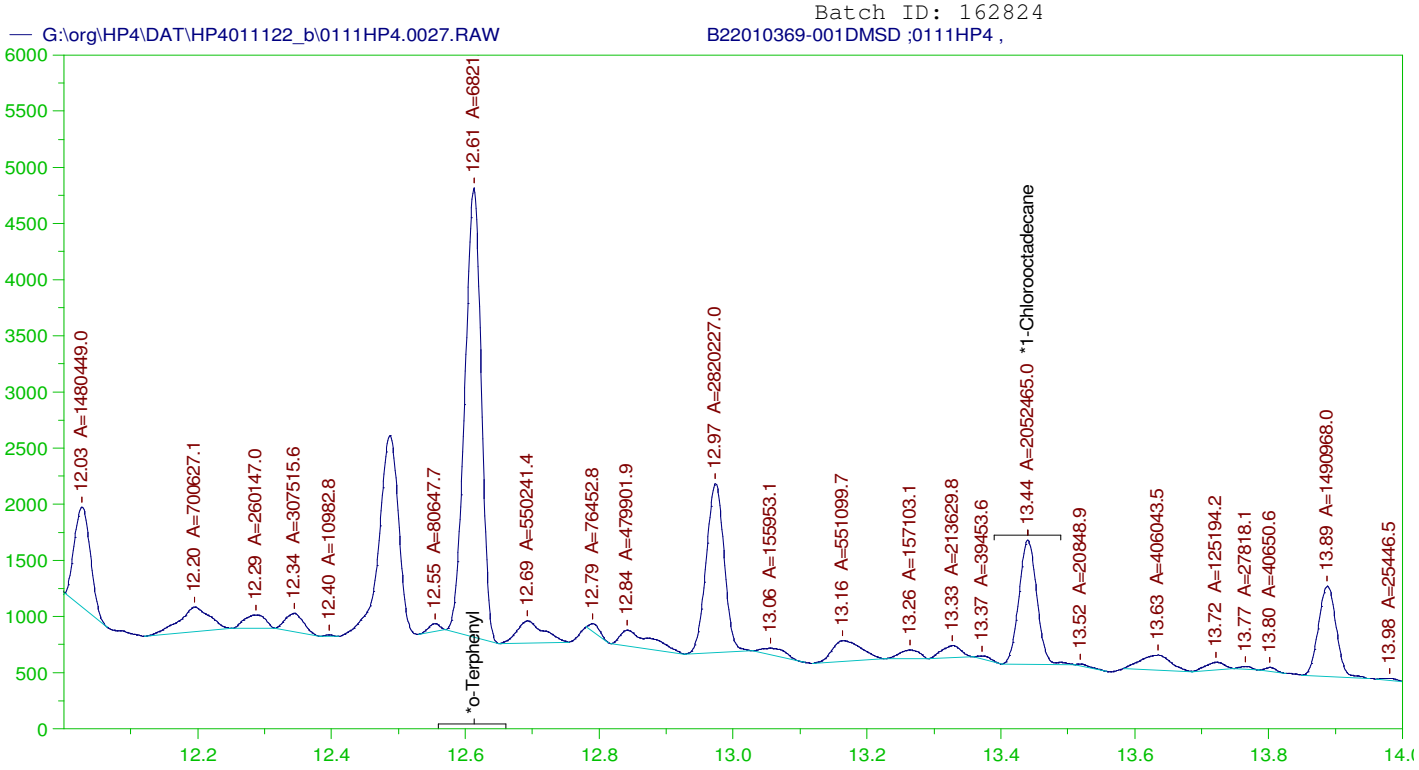
Sample Name: B22010369-001DMSD ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0027.RAW
Date & Time Acquired: 1/12/2022 3:13:19 AM
Method File: G:\Org\HP4\methods\D3_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.613	.189	.303	160.66	-
*1-Chlorooctadecane	13.44	.189	.208	110.37	-

DRO Area:4.254928E+08 DRO Amount: 13.66577
TEH Area:4.598513E+08 TEH Amount: 14.76927

Batch ID: 162824



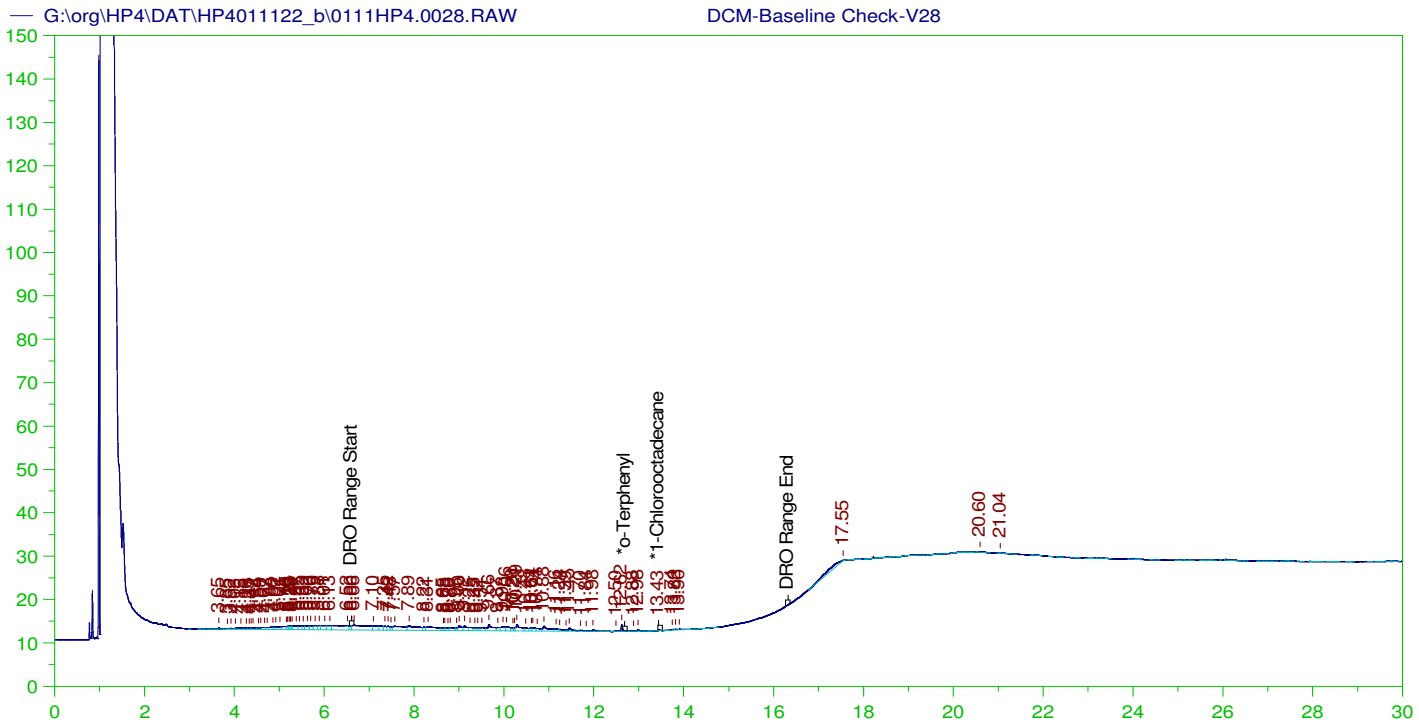
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010369-001DMSD ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0027.RAW
Date & Time Acquired: 1/12/2022 3:13:19 AM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.613	.189	.193	102.36	-
*1-Chlorooctadecane	13.44	.189	.058	30.8	-

DRO Area:1.704535E+08 DRO Amount: 5.474541
TEH Area:1.855304E+08 TEH Amount: 5.958772



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V28
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0028.RAW
Date & Time Acquired: 1/12/2022 3:58:01 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

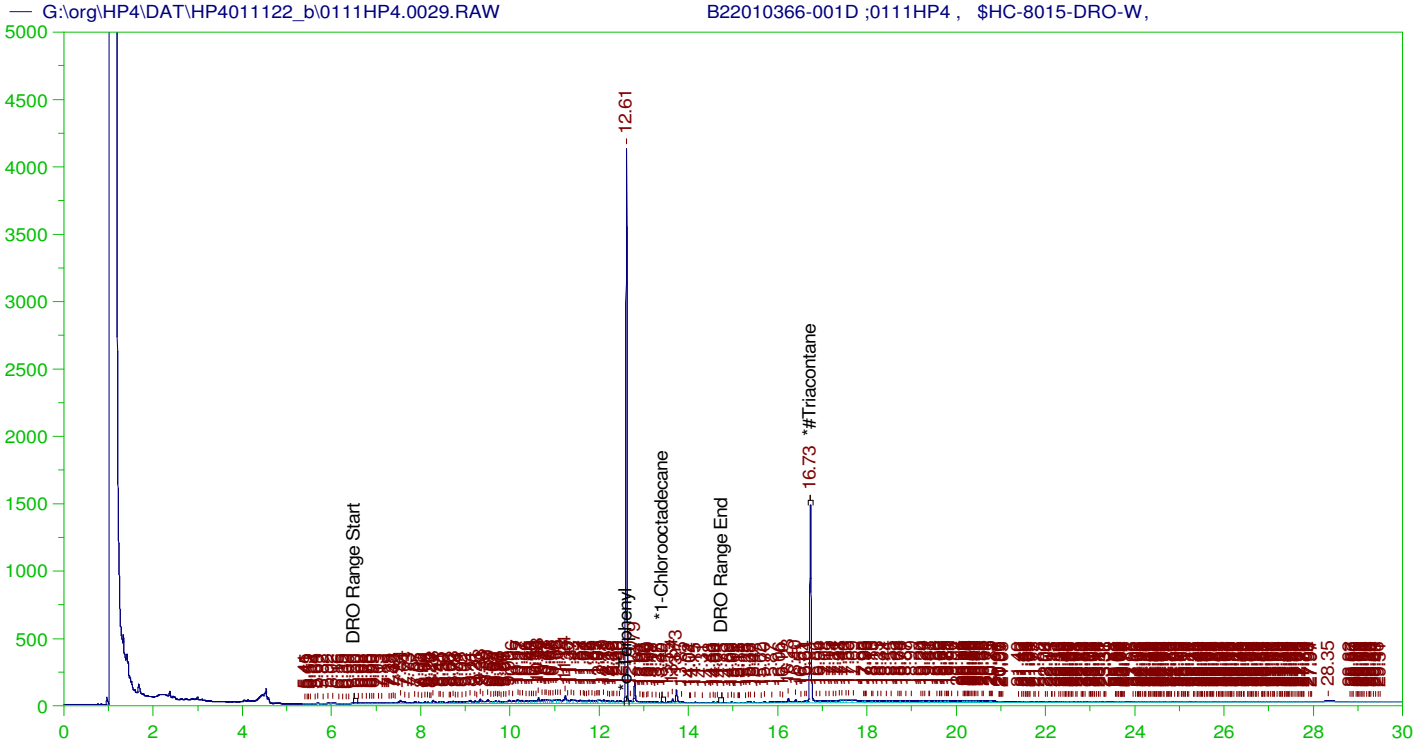
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.849	200.	.	-
*1-Chlorooctadecane	13.435	200.	.016	.01 -

DRO Area:233272.9 DRO Amount: 7.941672
TEH Area:380631.8 TEH Amount: 12.95844

ERH2323 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0029.RAW B22010366-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010366-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0029.RAW
Date & Time Acquired: 1/12/2022 4:42:41 AM
Method File: G:\Org\HP4\methods\D3_8015-011129-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

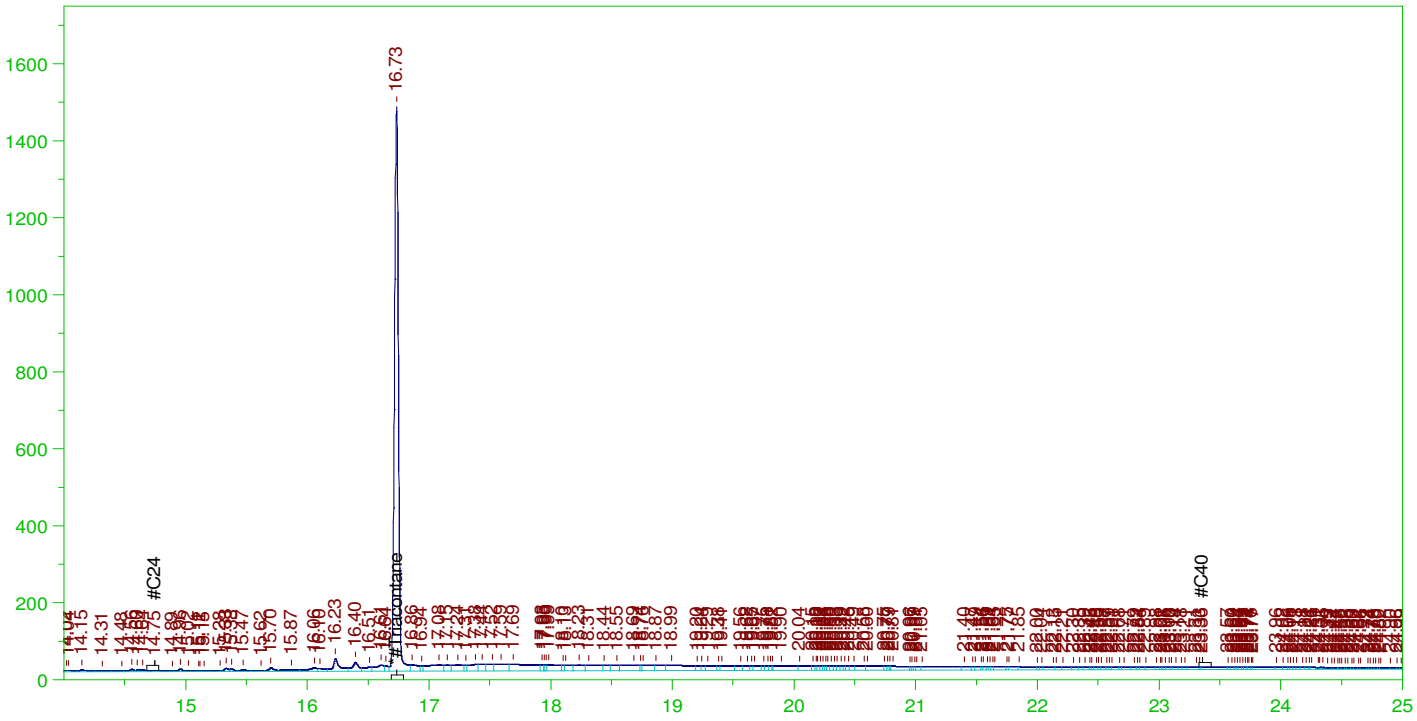
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.198	.214	107.85	-
*1-Chlorooctadecane	13.403	.198	.001	.5	-
*#Triacontane	16.733	.198	.13	65.71	-

DRO Area:6300652 DRO Amount: 0.2123791
TEH Area:1.255366E+07 TEH Amount: 0.4231522

ERH2323 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0029.RAW B22010366-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010366-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0029.RAW
Date & Time Acquired: 1/12/2022 4:42:41 AM
Method File: G:\Org\HP4\Methods\D3_ORO-011129-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

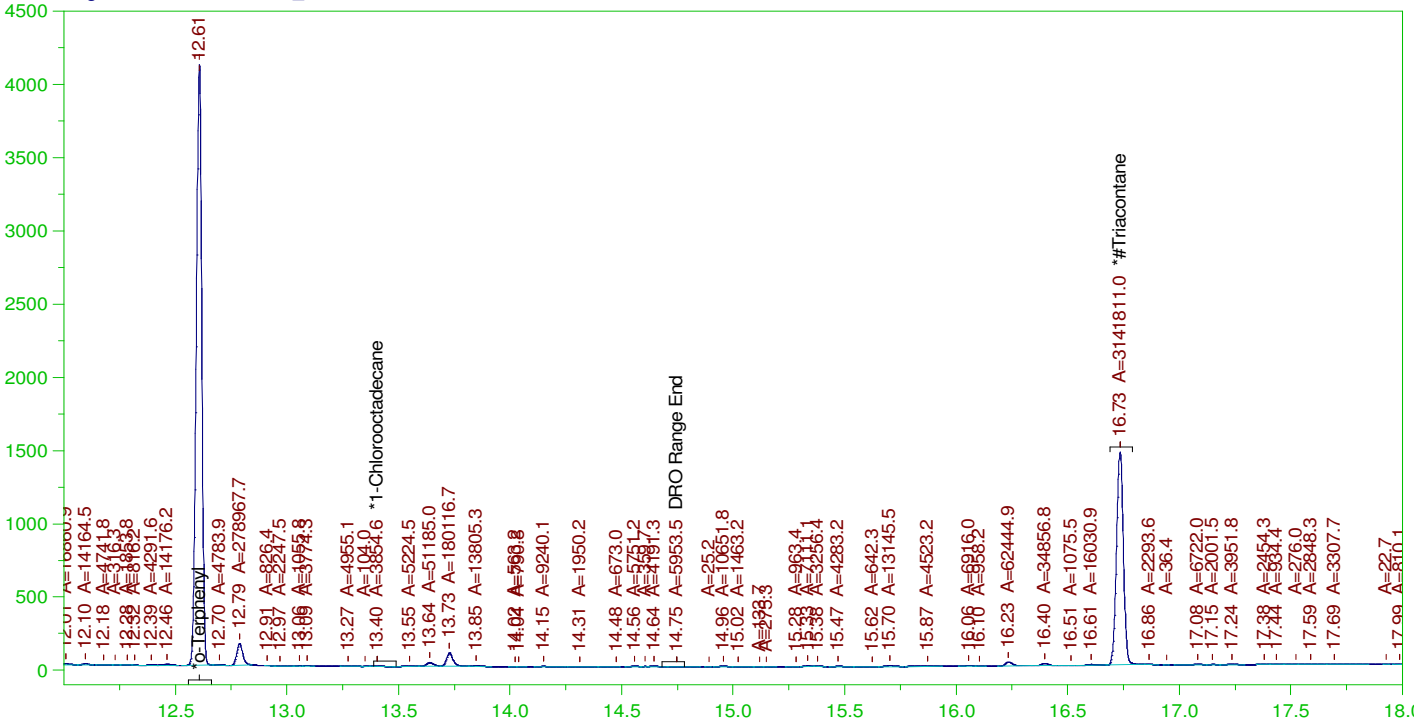
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.733	.495	.13	26.28	-

RRO Area:5139172 RRO AMOUNT: 0.207435

ERH2323 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0029.RAW B22010366-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010366-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0029.RAW
Date & Time Acquired: 1/12/2022 4:42:41 AM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

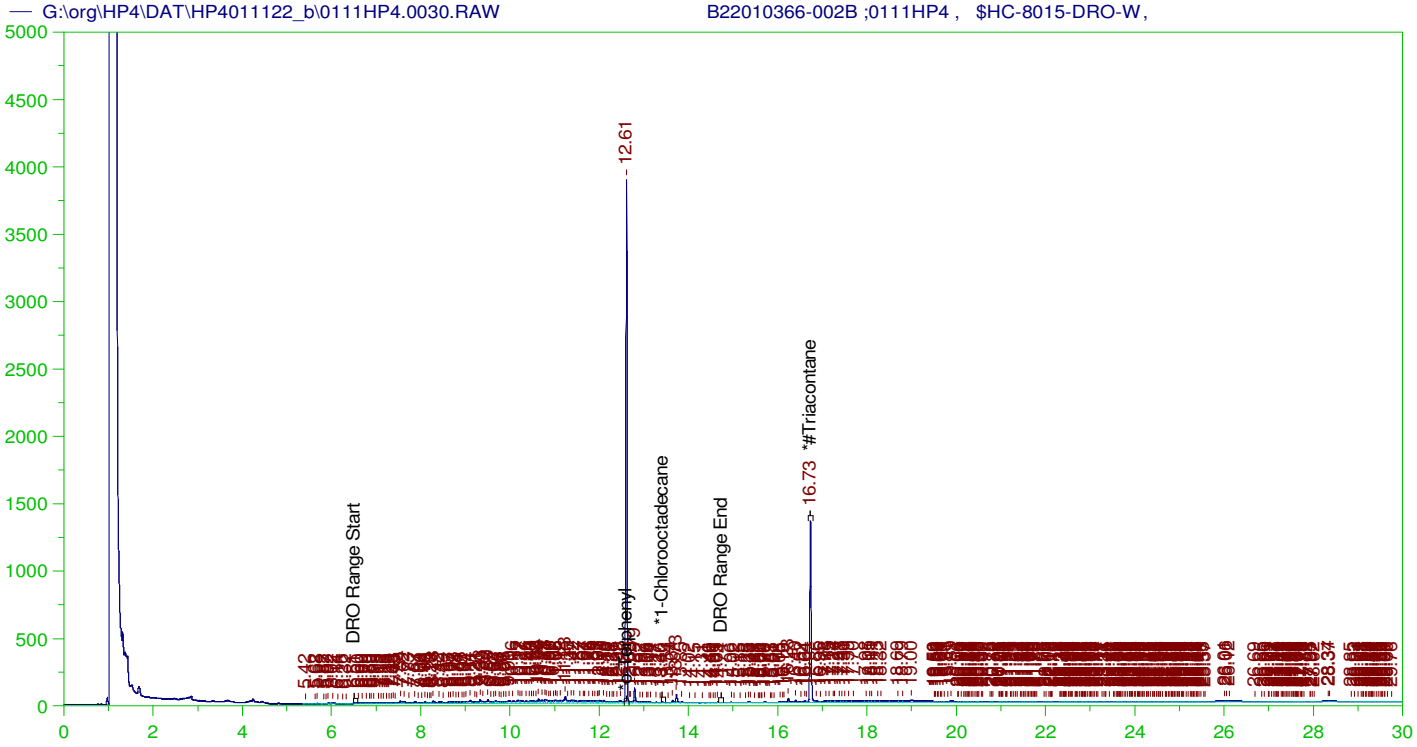
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.198	.21	106.04	-
*1-Chlorooctadecane	13.403	.198	.	.06	-
*#Triacontane	16.733	.198	.125	62.9	-

DRO Area:2409540 DRO Amount: 8.121951E-02
TEH Area:4117247 TEH Amount: 0.138782

ERH2324 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0030.RAW B22010366-002B ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010366-002B ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0030.RAW
Date & Time Acquired: 1/12/2022 5:27:22 AM
Method File: G:\Org\HP4\methods\D3_8015-011129-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.196	.198	101.17	-
*1-Chlorooctadecane	13.404	.196	.001	.44	-
*#Triacontane	16.733	.196	.117	59.58	-

DRO Area:5393186 DRO Amount: 0.1800084
TEH Area:1.144615E+07 TEH Amount: 0.3820381

ERH2324 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0030.RAW B22010366-002B ;0111HP4 , $HC-8015-DRO-W,

RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010366-002B ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0030.RAW
Date & Time Acquired: 1/12/2022 5:27:22 AM
Method File: G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

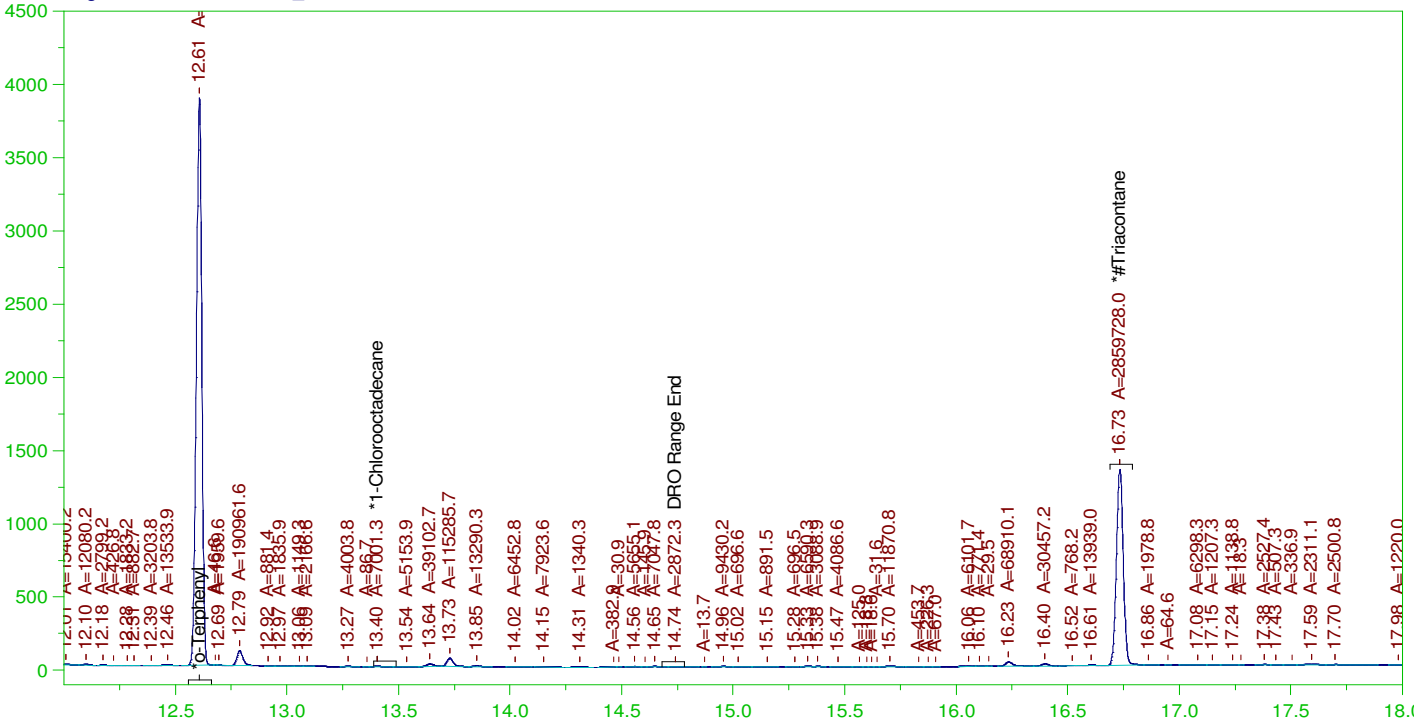
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.733	.49	.117	23.83	-

RRO Area:4444621 RRO AMOUNT: 0.1776416

ERH2324 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0030.RAW B22010366-002B ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010366-002B ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0030.RAW
Date & Time Acquired: 1/12/2022 5:27:22 AM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

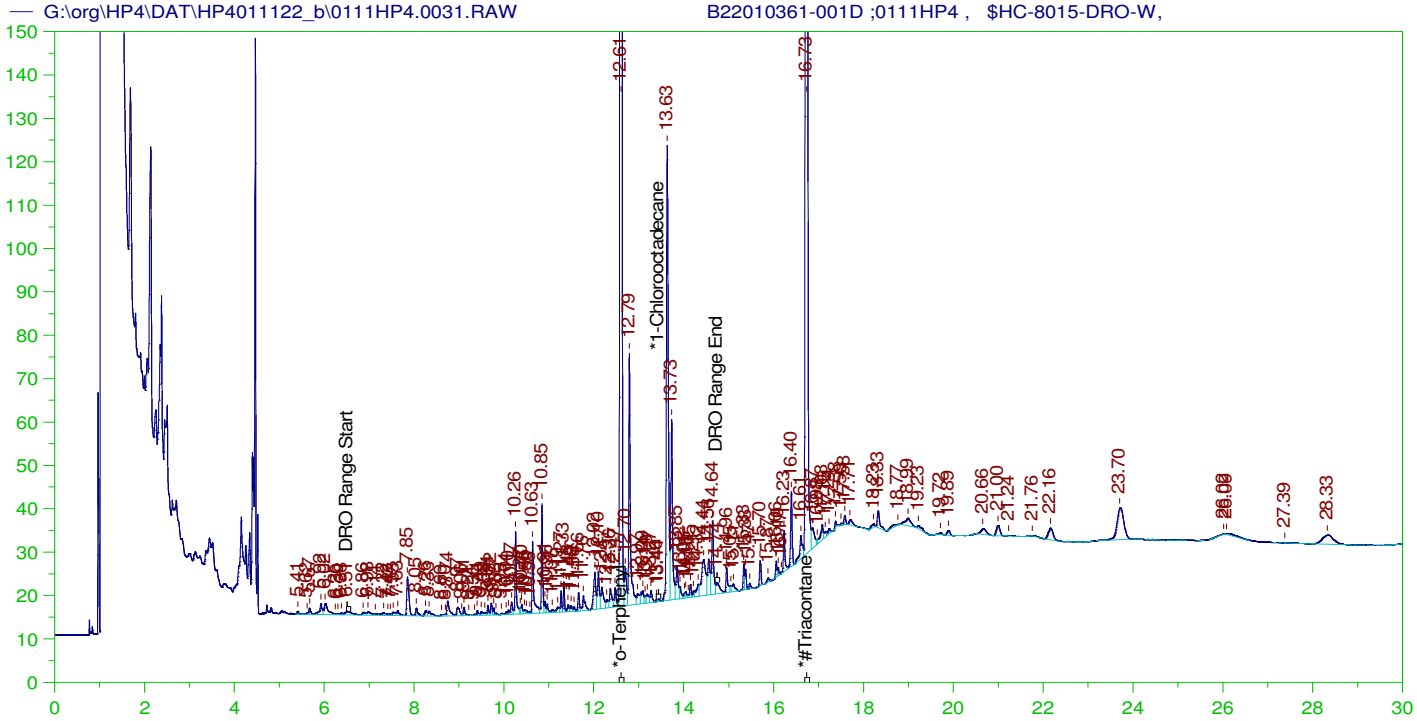
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.607	.196	.195	99.54	-
*1-Chlorooctadecane	13.404	.196	. .11		-
*#Triacontane	16.733	.196	.112	57.25	-

DRO Area:2115327 DRO Amount: 7.060329E-02
TEH Area:3013731 TEH Amount: 0.1005893

ERH2360 (RHMW08) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0031.RAW B22010361-001D ;0111HP4 , $HC-8015-DRO-W,



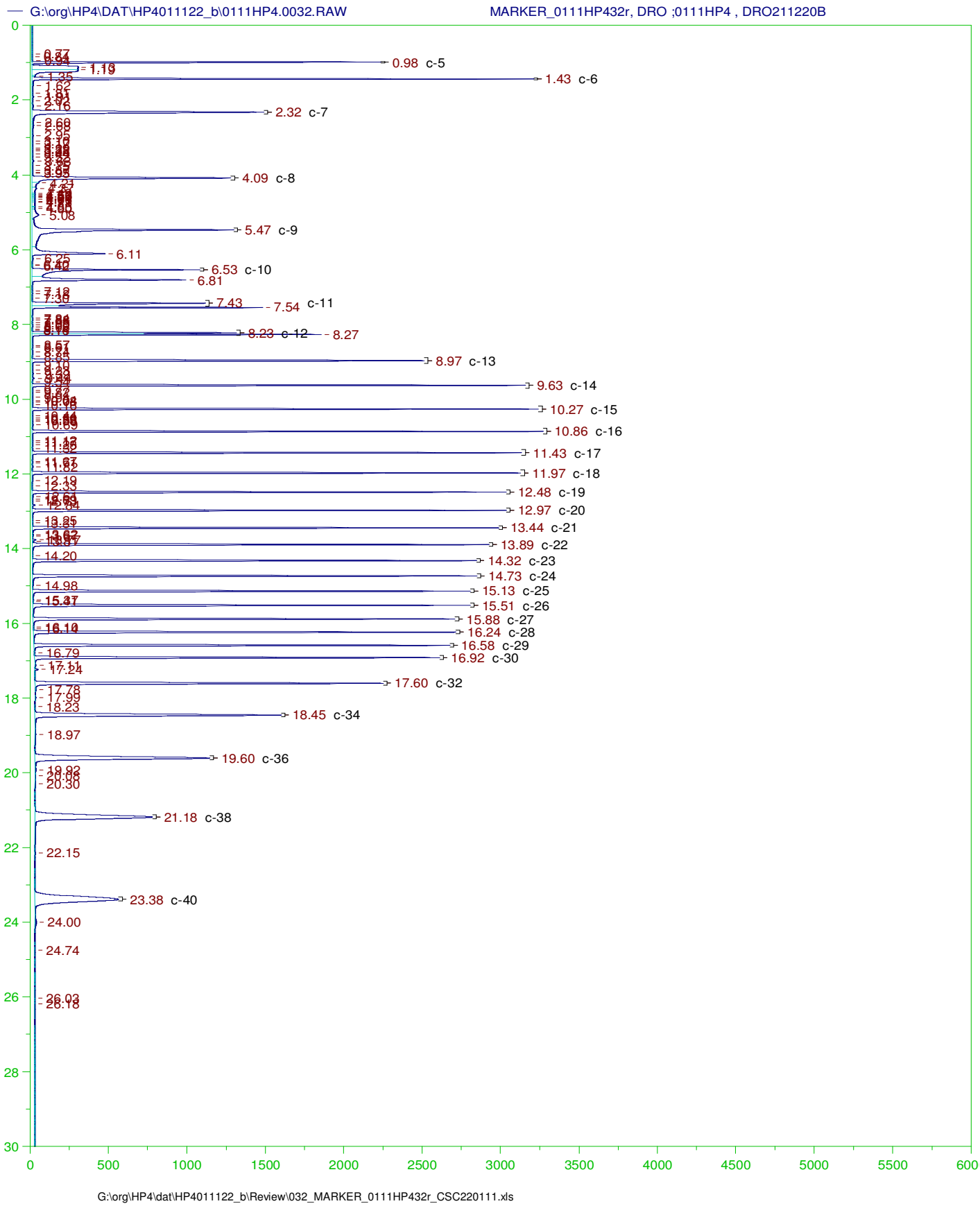
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

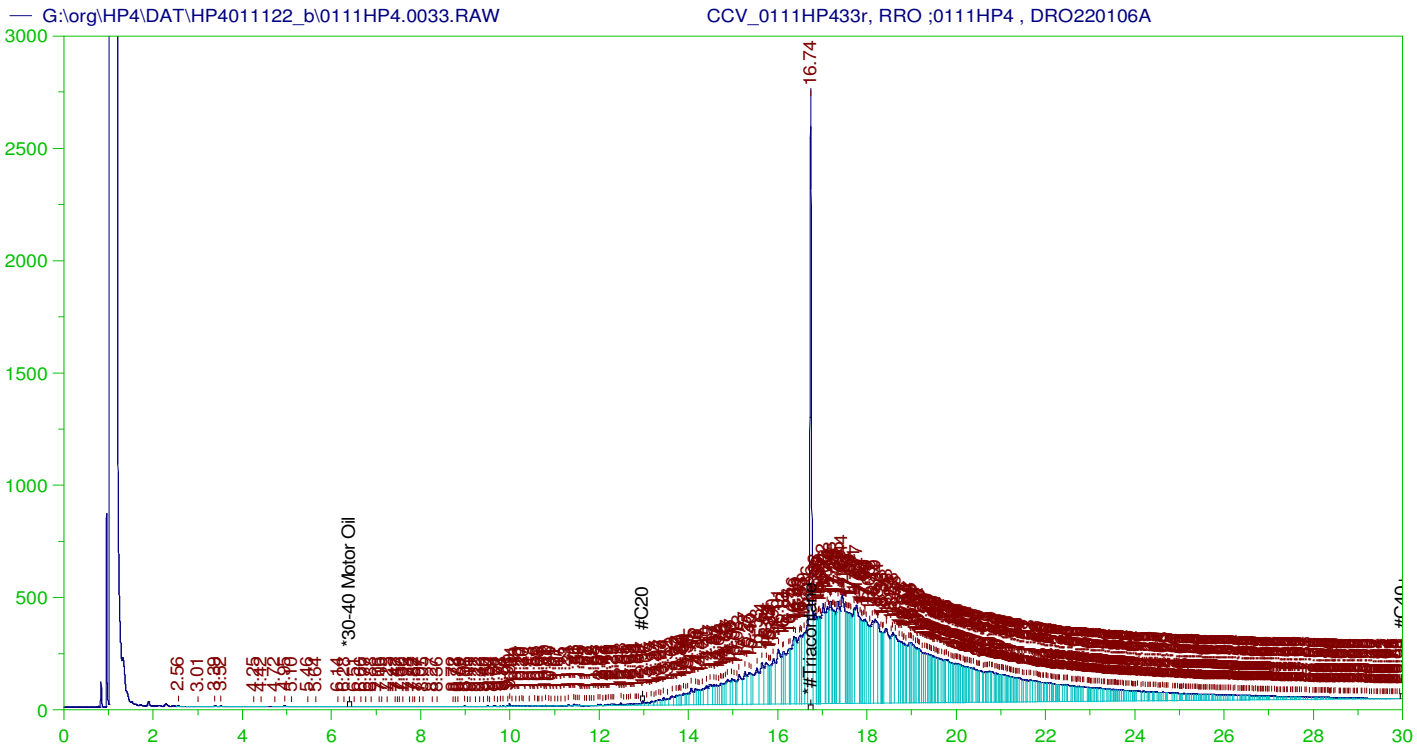
Sample Name: B22010361-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0031.RAW
Date & Time Acquired: 1/12/2022 6:12:10 AM
Method File: G:\Org\HP4\methods\DR_8015-C24T-OJ-L0.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OJ-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.8

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.605	.19	.142	74.62	-
*1-Chlorooctadecane	13.439	.19	.	.02	-
*#Triacontane	16.733	.19	.113	59.56	-

DRO Area:1365329 DRO Amount: 4.426857E-02
TEH Area:1871330 TEH Amount: 6.067484E-02


G:\org\HP4\DAT\HP4011122_b\0111HP4.0032.RAW
MARKER_0111HP432r, DRO ;0111HP4 , DRO211220B
0.98 c-5
1.43 c-6
2.32 c-7
4.09 c-8
5.47 c-9
6.11
6.53 c-10
6.81
7.43
7.54 c-11
8.23 c-12
8.27
8.97 c-13
9.63 c-14
10.27 c-15
10.86 c-16
11.43 c-17
11.97 c-18
12.48 c-19
12.97 c-20
13.44 c-21
13.89 c-22
14.20
14.32 c-23
14.73 c-24
14.98
15.13 c-25
15.51 c-26
15.88 c-27
16.24 c-28
16.58 c-29
16.79
16.92 c-30
17.24
17.60 c-32
17.78
17.99
18.23
18.45 c-34
18.97
19.60 c-36
20.30
21.18 c-38
22.15
23.38 c-40
24.00
24.74
26.03
26.18
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
600
G:\org\HP4\dat\HP4011122_b\Review\032_MARKER_0111HP432r_CSC220111.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP433r, RRO ;0111HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0033.RAW
Date & Time Acquired: 1/12/2022 7:41:28 AM
Method File: G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.74	500.	310.454	62.09	-

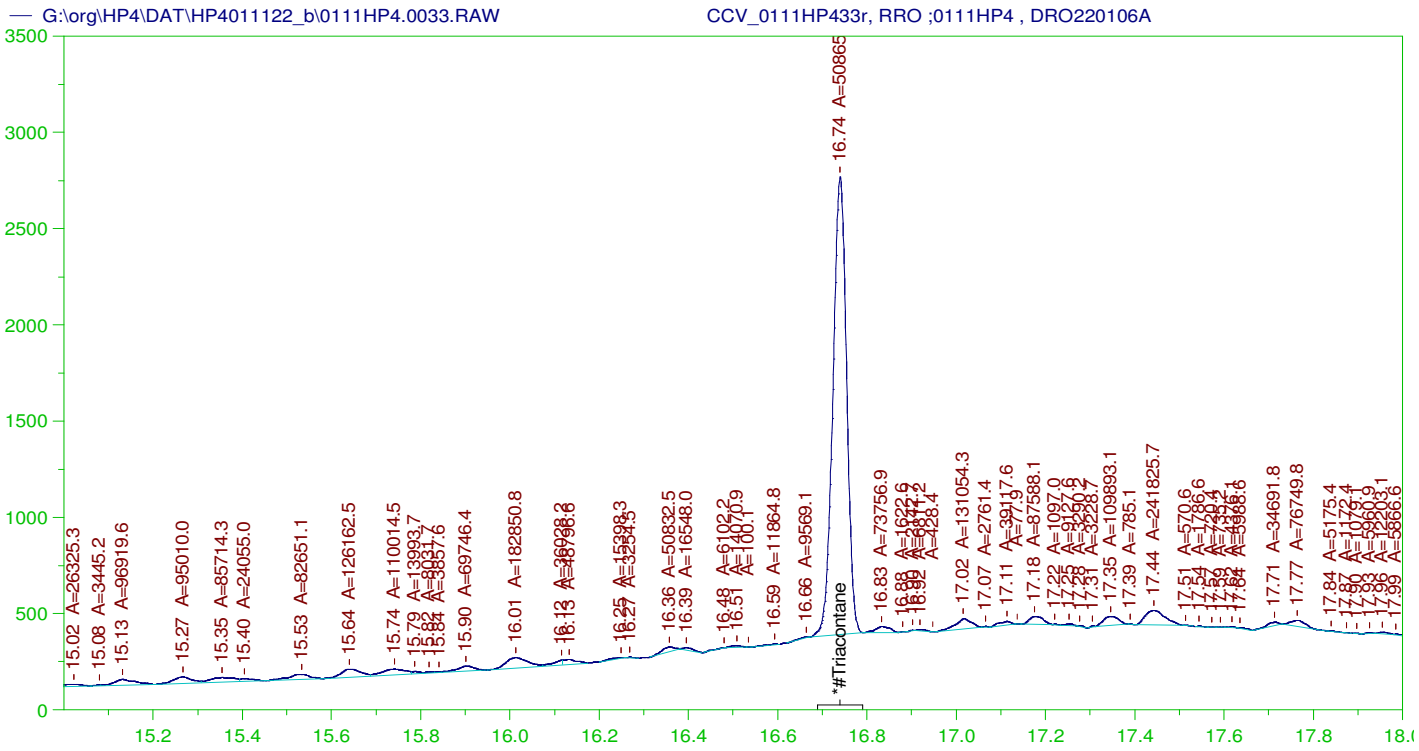
~~RRO~~ TEH (Oil Range) Area:1.163339E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4742.6

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0033.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.74	200.	310.454	155.23	75-125

AMN 02/01/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP433r, RRO ;0111HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0033.RAW
Date & Time Acquired: 1/12/2022 7:41:28 AM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

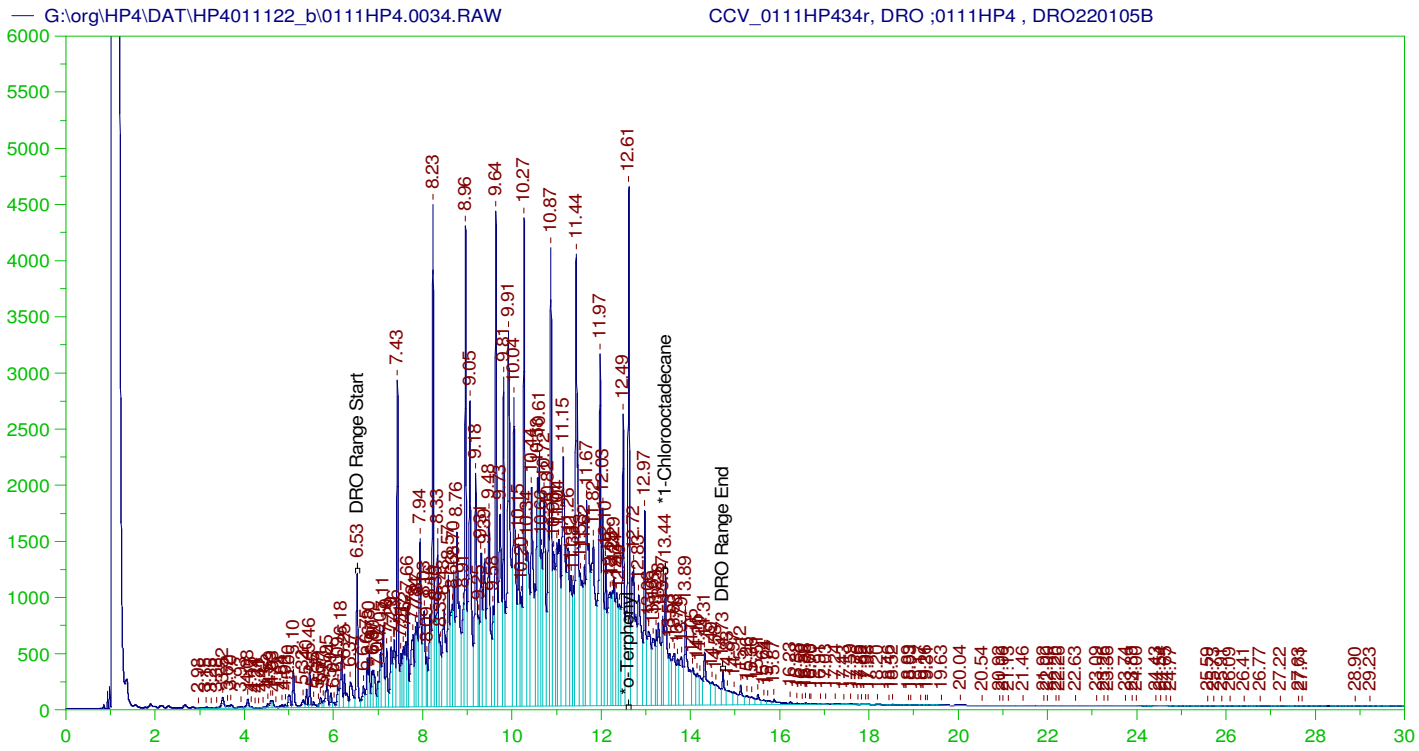
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.74	500.	203.675	40.73	-

RRO Area:3522743 RRO AMOUNT: 143.6121

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0033.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.74	200.	203.675	101.84	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0111HP434r, DRO ;0111HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0034.RAW
Date & Time Acquired: 1/12/2022 8:26:01 AM
Method File: G:\Org\HP4\methods\DC_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.614	200.	368.192	184.1	-
*1-Chlorooctadecane	13.439	200.	140.123	70.06	-

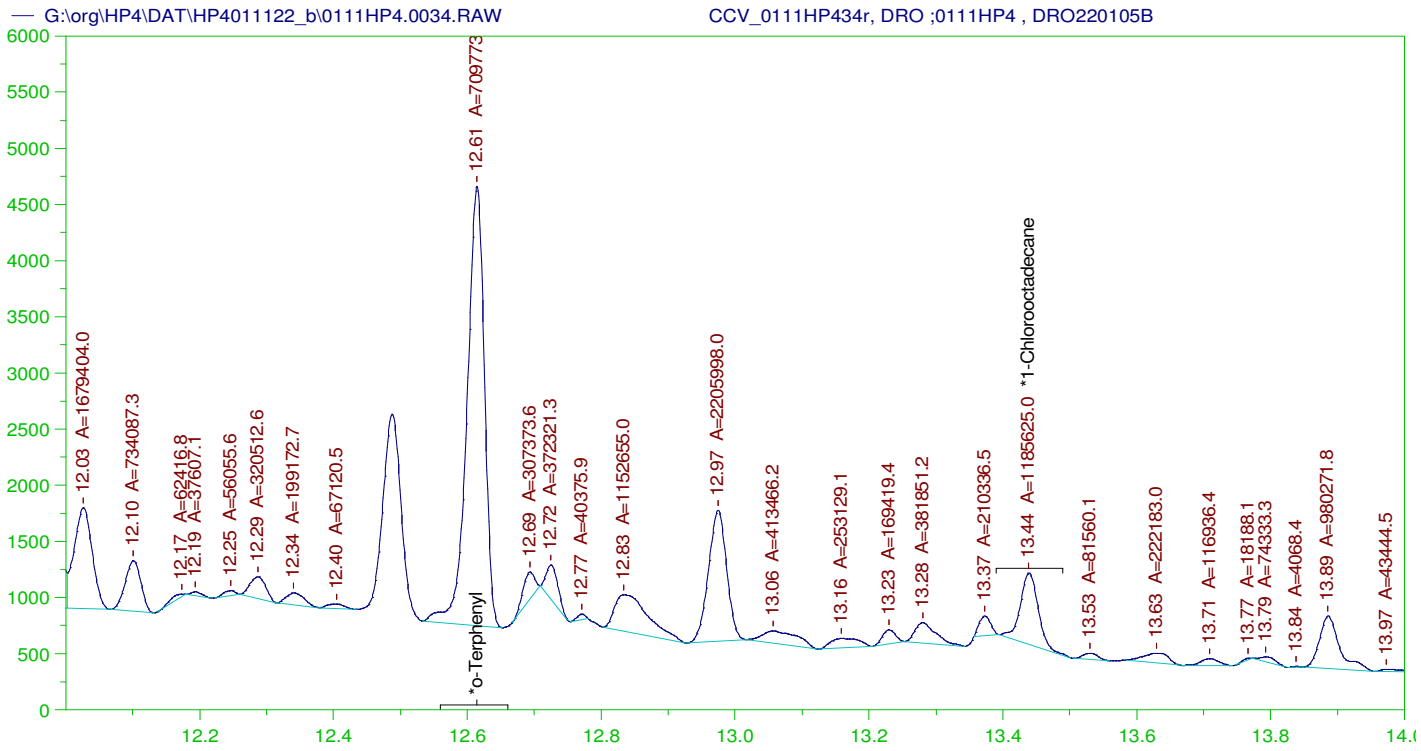
DRO Area:4.487554E+08 DRO Amount: 15277.67
TEH Area:4.651985E+08 TEH Amount: 15837.47

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0034.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15837.47	105.58	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.614	200.	368.192	184.1	85-115
*1-Chlorooctadecane	13.439	200.	140.123	70.06	85-115

G:\org\HP4\dat\HP4011122_b\Review\034_CCV_0111HP434r_DC_8015-C24-OK-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0111HP434r, DRO ;0111HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0034.RAW
Date & Time Acquired: 1/12/2022 8:26:01 AM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.614	200.	213.019	106.51	-
*1-Chlorooctadecane	13.439	200.	35.583	17.79	-

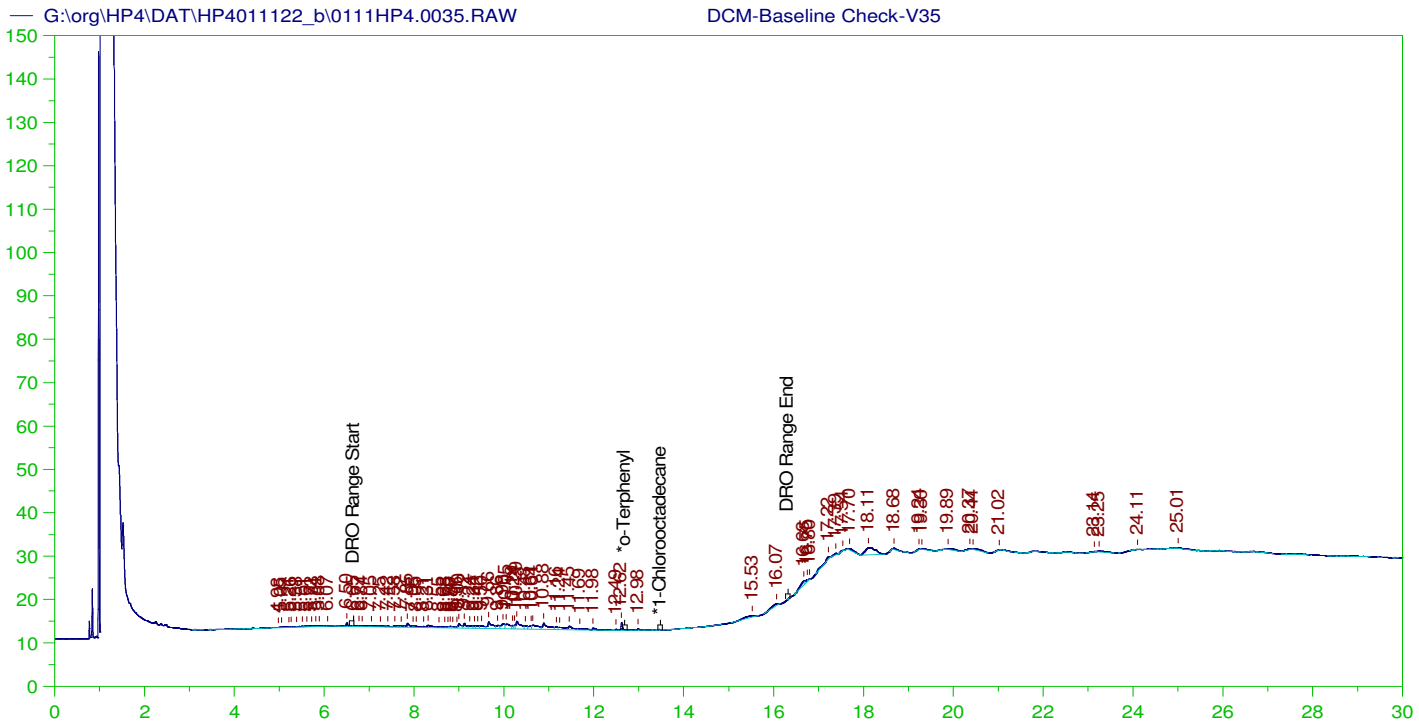
DRO Area:1.92036E+08 DRO Amount: 6537.779
TEH Area:2.023023E+08 TEH Amount: 6887.292

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0034.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	6887.29	45.92	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.614	200.	213.019	106.51	85-115
*1-Chlorooctadecane	13.439	200.	35.583	17.79	85-115

G:\org\HP4\dat\HP4011122_b\Review\034_CCV_0111HP434r_DS_8015-C24-OK-L#.xls



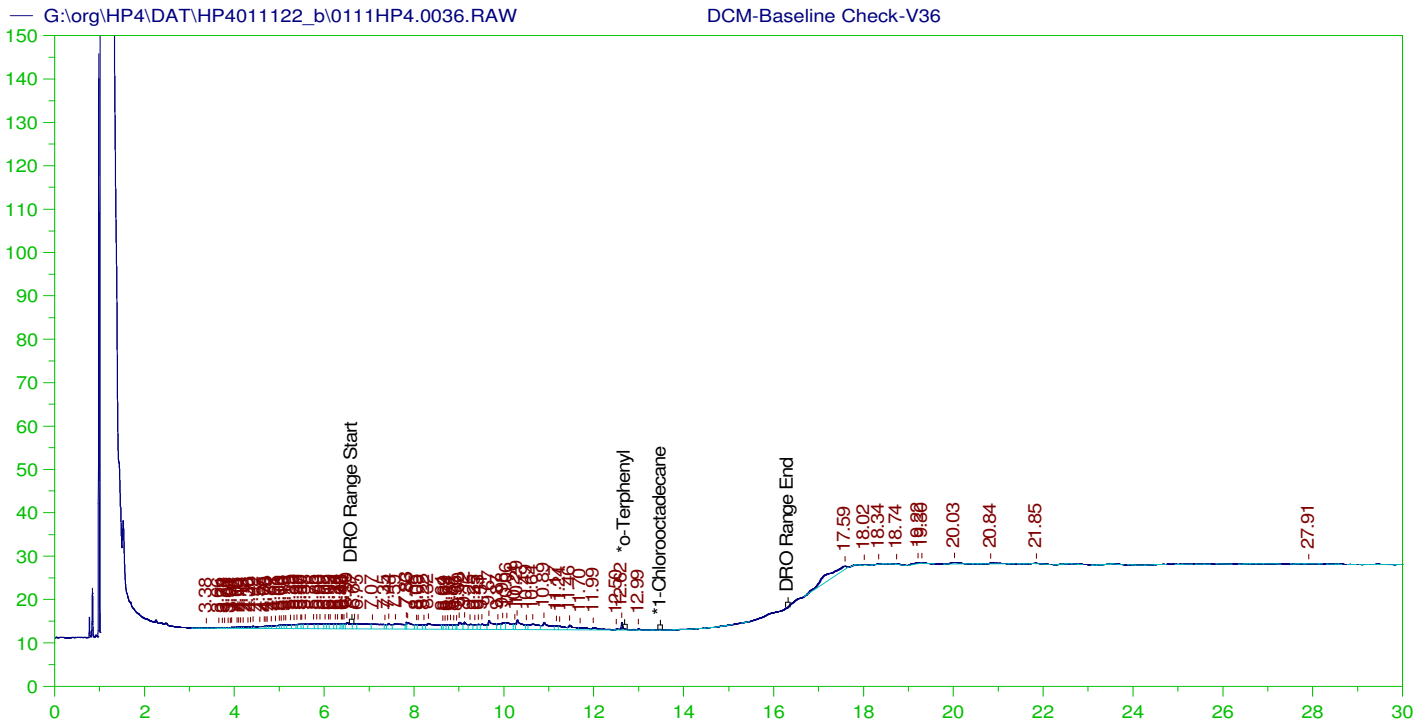
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V35
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0035.RAW
Date & Time Acquired: 1/12/2022 9:10:45 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.836	200.	.	.	-
*1-Chlorooctadecane	29.836	200.	.	.	-

DRO Area:165173.5 DRO Amount: 5.623256
TEH Area:259928.5 TEH Amount: 8.84915



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V36
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0036.RAW
Date & Time Acquired: 1/12/2022 9:55:22 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

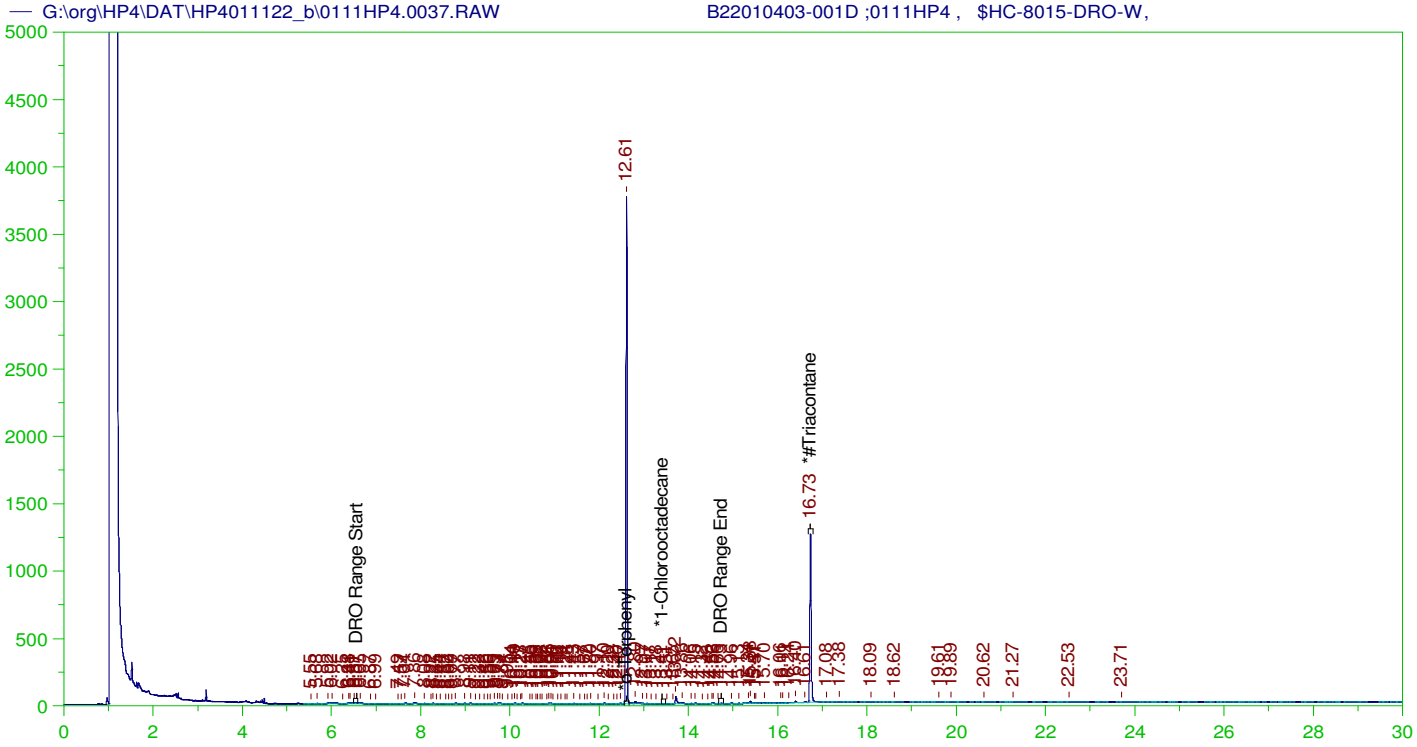
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.969	200.	.	.	-
*1-Chlorooctadecane	29.969	200.	.	.	-

DRO Area:342655.5 DRO Amount: 11.66555
TEH Area:550963.4 TEH Amount: 18.7573

ERH2342 (RHMW15 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0037.RAW B22010403-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010403-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0037.RAW
Date & Time Acquired: 1/12/2022 10:39:58 AM
Method File: G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

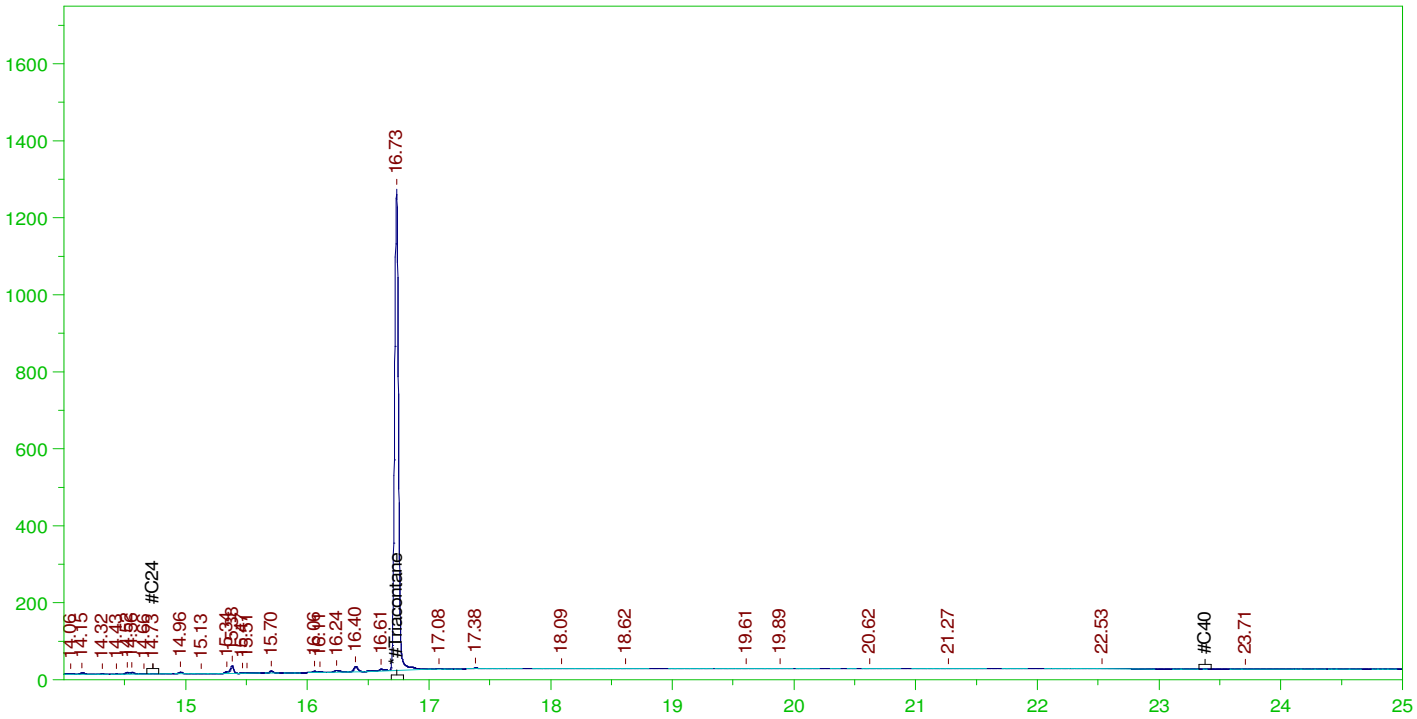
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.608	.194	.191	98.28	-
*1-Chlorooctadecane	13.408	.194	. .05		-
*#Triacontane	16.734	.194	.108	55.8	-

DRO Area:577156 DRO Amount: 1.907671E-02
TEH Area:807791 TEH Amount: 2.669988E-02

ERH2342 (RHMW15 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0037.RAW B22010403-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010403-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0037.RAW
Date & Time Acquired: 1/12/2022 10:39:58 AM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

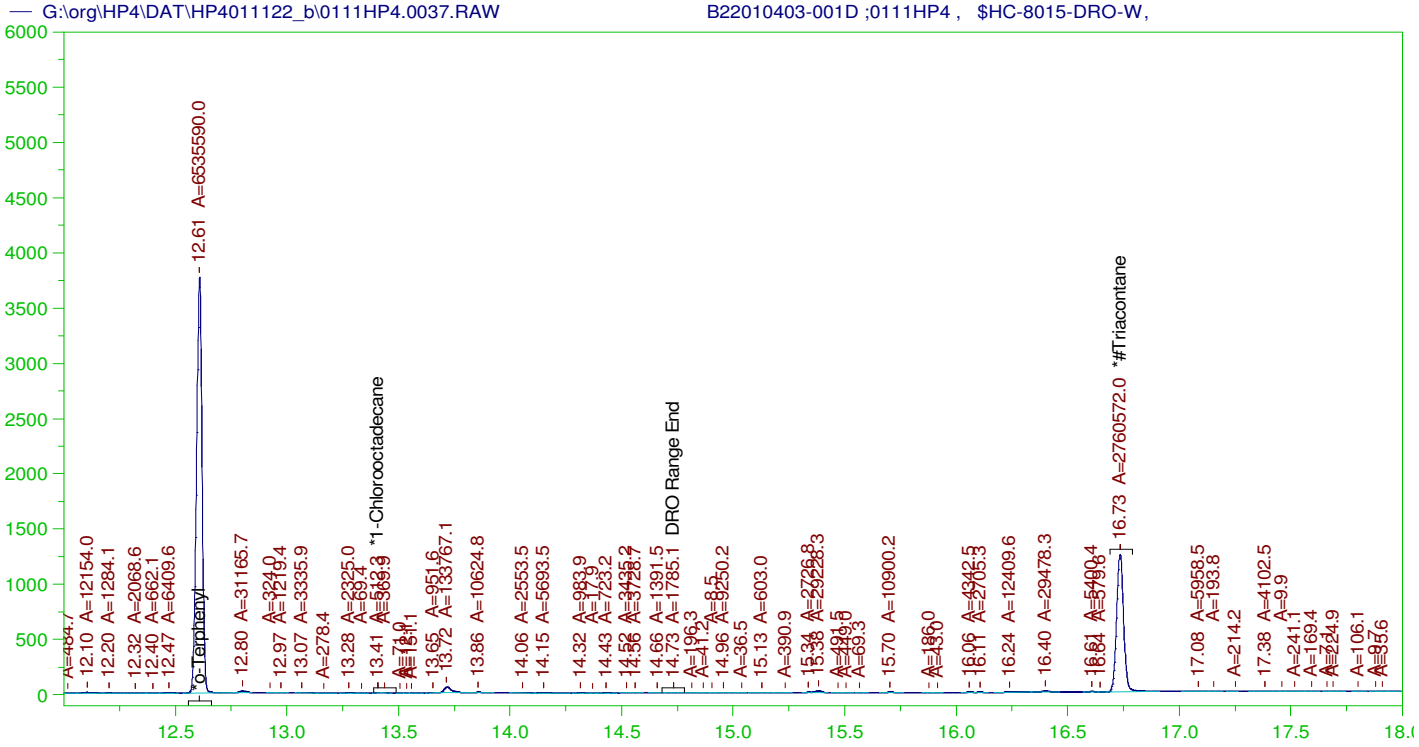
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.734	.485	.108	22.32	-

RRO Area:167545.5 RRO AMOUNT: 6.631408E-03

ERH2342 (RHMW15 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0037.RAW B22010403-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010403-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0037.RAW
Date & Time Acquired: 1/12/2022 10:39:58 AM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

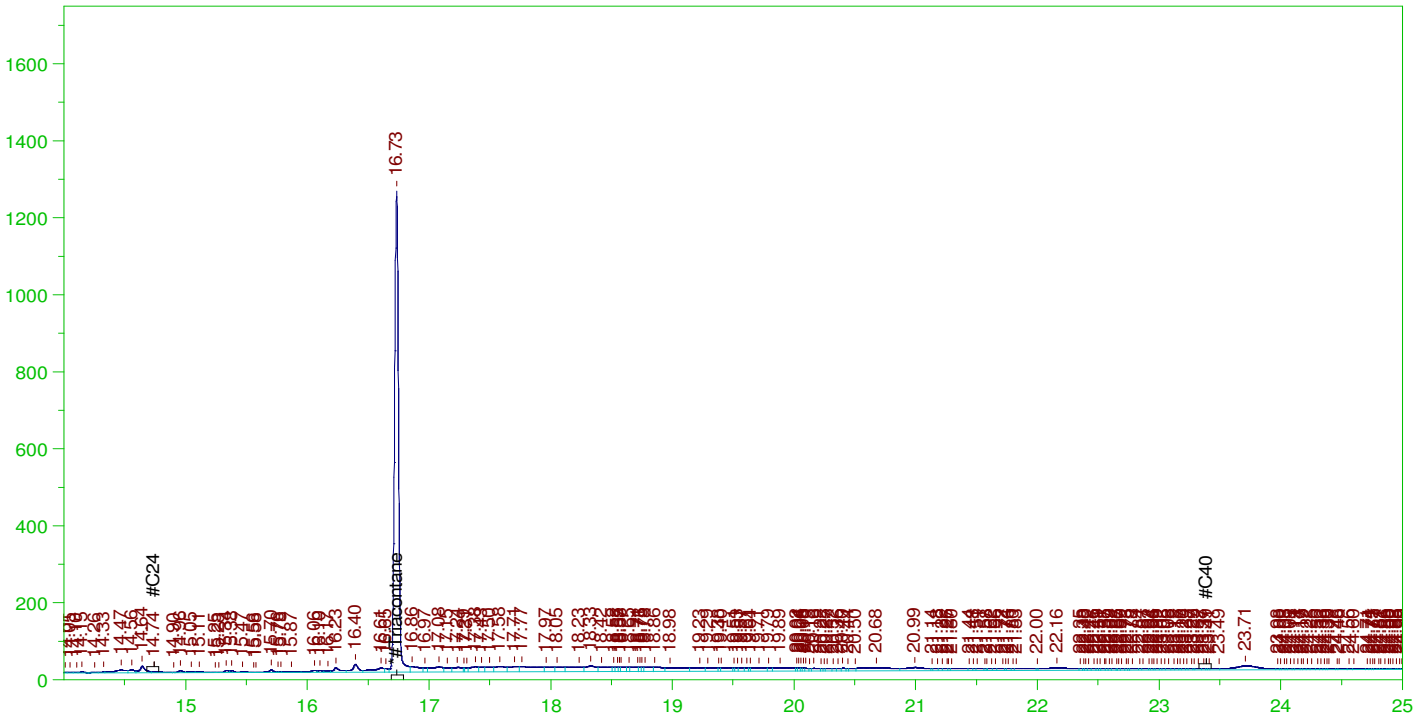
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.608	.194	.19	98.07	-
*1-Chlorooctadecane	13.408	.194	.	.01	-
*#Triacontane	16.734	.194	.107	55.27	-

DRO Area:485880 DRO Amount: 1.605977E-02
TEH Area:1161934 TEH Amount: 3.840535E-02

ERH2360 (RHMW08) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0038.RAW B22010361-001D ;0111HP4 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010361-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0038.RAW
Date & Time Acquired: 1/12/2022 11:24:43 AM
Method File: G:\Org\HP4\Methods\D3_ORO-011138-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

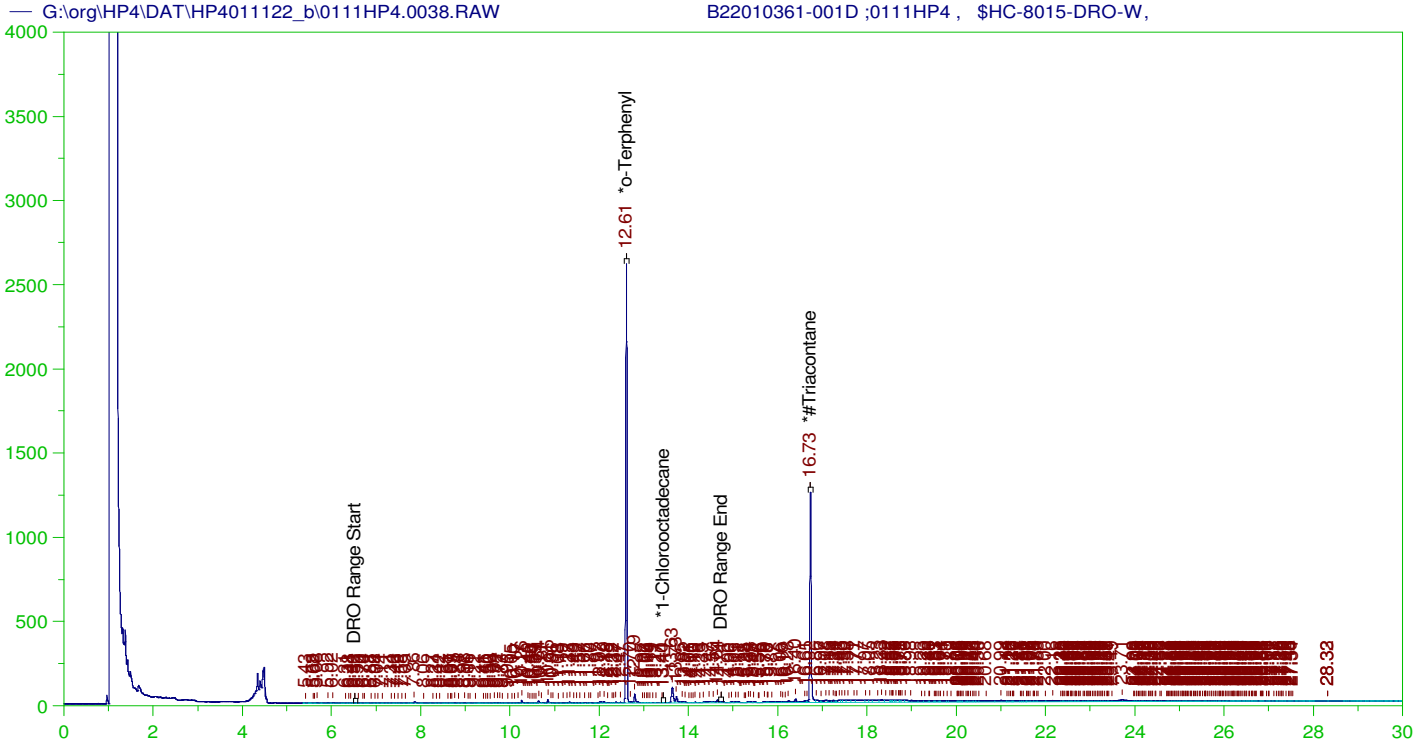
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.734	.476	.107	22.45	-

RRO Area:3426231 RRO AMOUNT: 0.1330263

ERH2360 (RHMW08) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0038.RAW B22010361-001D ;0111HP4 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010361-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0038.RAW
Date & Time Acquired: 1/12/2022 11:24:43 AM
Method File: G:\Org\HP4\methods\DR_8015-011138-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

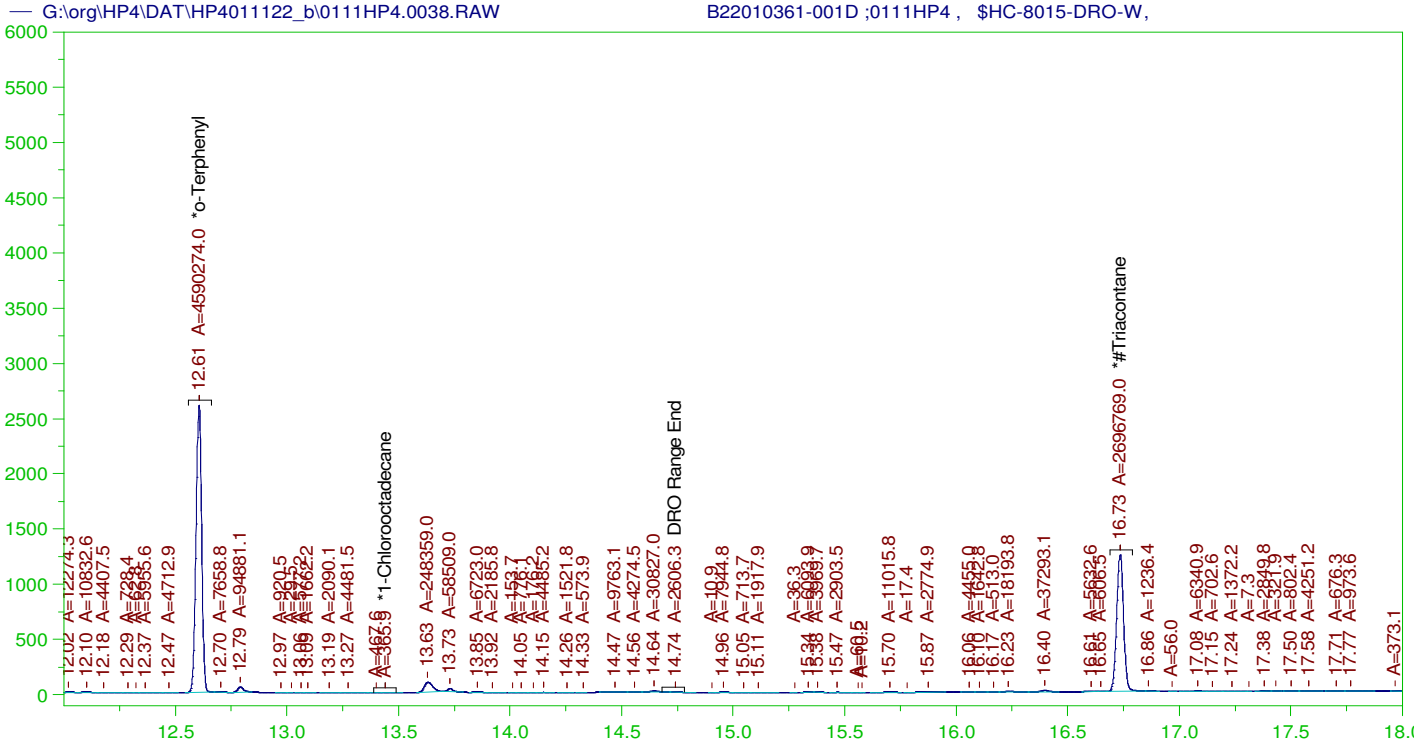
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.606	.19	.132	69.26	-
*1-Chlorooctadecane	13.44	.19	.	.03	-
*#Triacontane	16.734	.19	.107	56.14	-

DRO Area:1253669 DRO Amount: 0.0406482
TEH Area:5265207 TEH Amount: 0.1707158

ERH2360 (RHMW08) Batch ID: 162824

G:\org\HP4\DAT\HP4011122_b\0111HP4.0038.RAW B22010361-001D ;0111HP4 , $HC-8015-DRO-W,



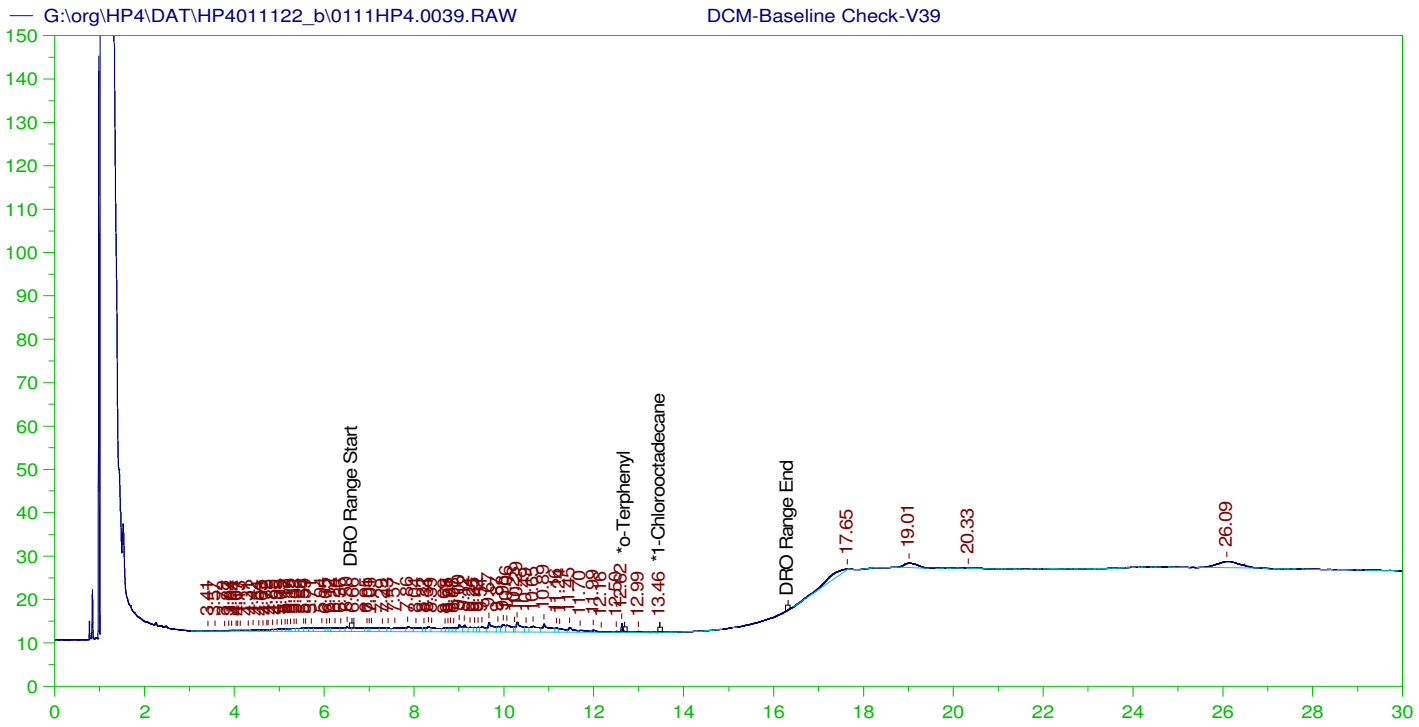
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010361-001D ;0111HP4 , $HC-8015-DRO-W,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0038.RAW
Date & Time Acquired: 1/12/2022 11:24:43 AM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.606	.19	.131	68.88	-
*1-Chlorooctadecane	29.977	.19	.	.	-
*#Triacontane	16.734	.19	.103	53.99	-

DRO Area:851515.4 DRO Amount: 2.760901E-02
TEH Area:3455469 TEH Amount: 0.112038



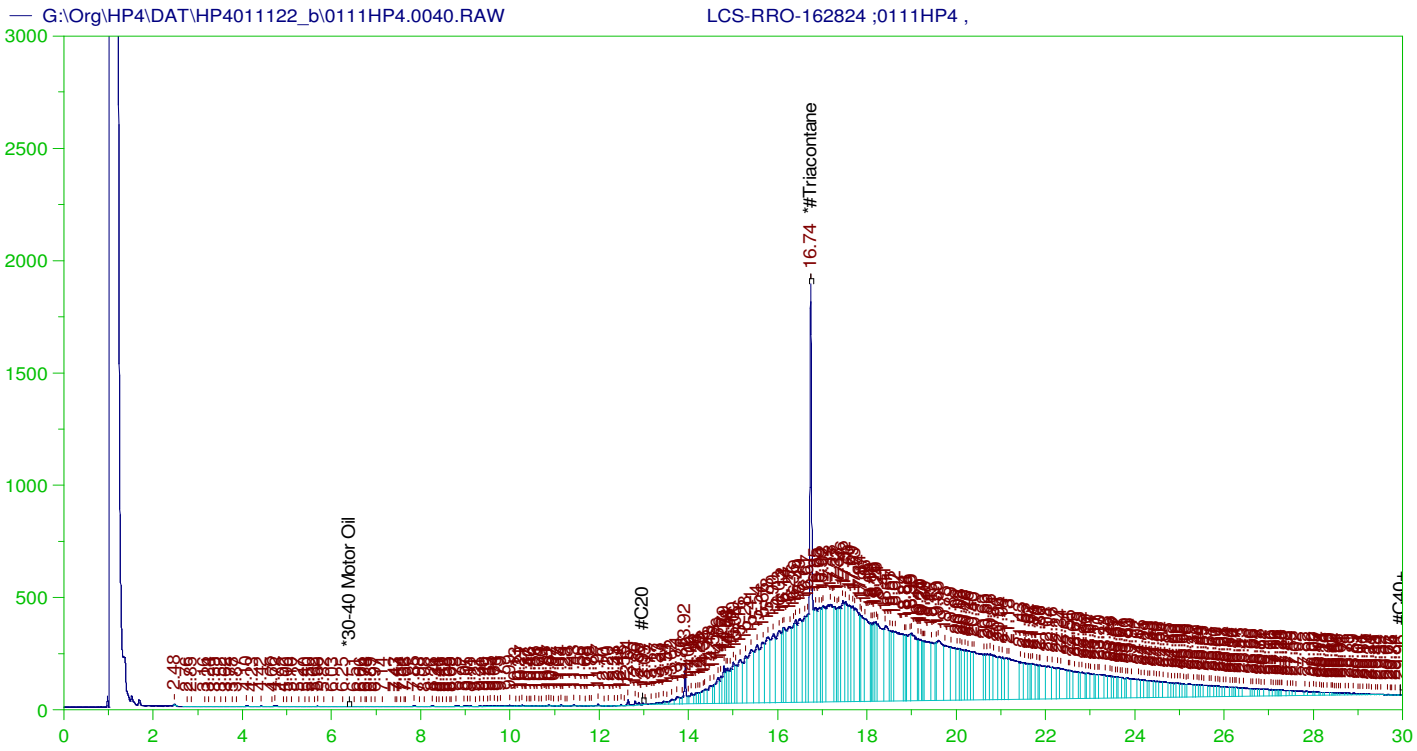
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V39
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0039.RAW
Date & Time Acquired: 1/12/2022 12:09:38 PM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.811	200.	.	. -
*1-Chlorooctadecane	13.463	200.	.021	.01 -

DRO Area:307175.6 DRO Amount: 10.45765
TEH Area:509195.4 TEH Amount: 17.33533



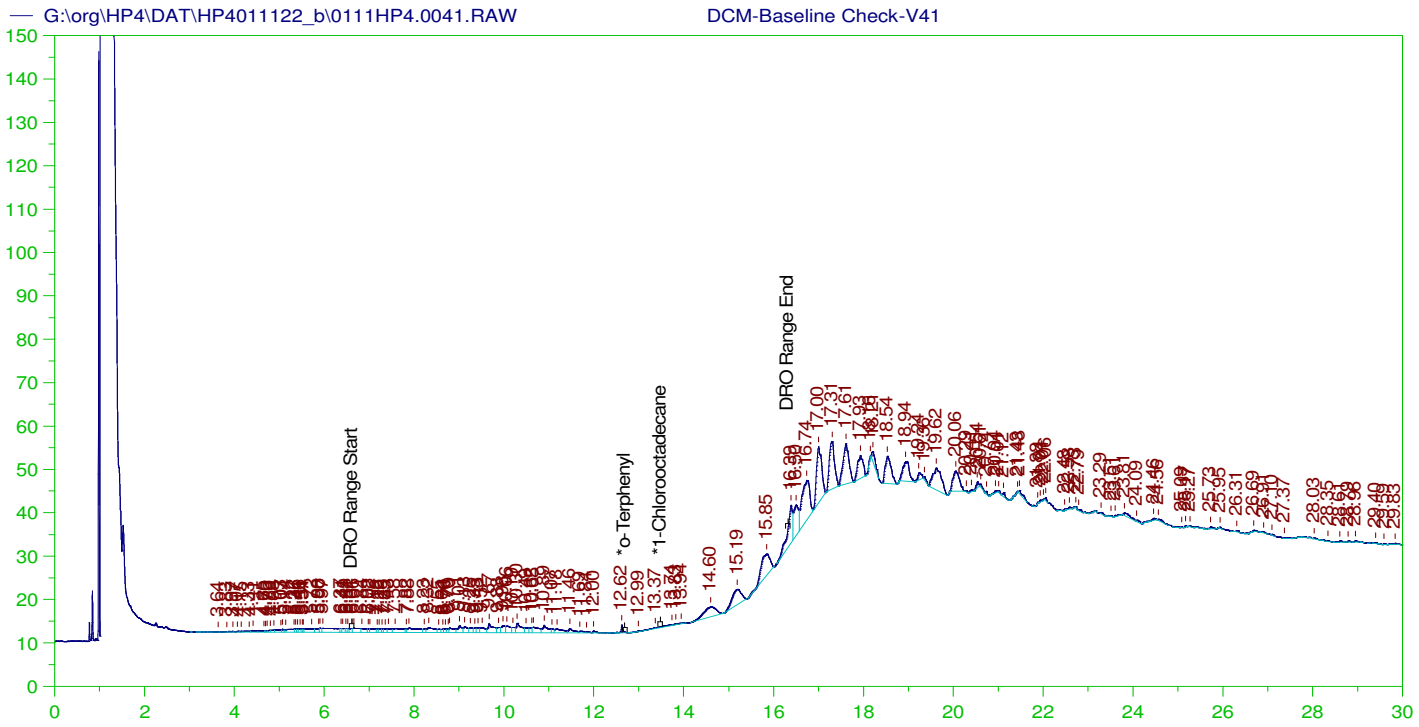
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCS-RRO-162824 ;0111HP4 ,
Raw File: G:\Org\HP4\DAT\HP4011122_b\0111HP4.0040.RAW
Date & Time Acquired: 1/12/2022 12:54:20 PM
Method File: G:\Org\HP4\Methods\D3_ORO-T-AC-L0.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AC.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.95 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.739	.481	.235	48.84	-

RRO Area:1.467805E+08 RRO AMOUNT: 5.753674



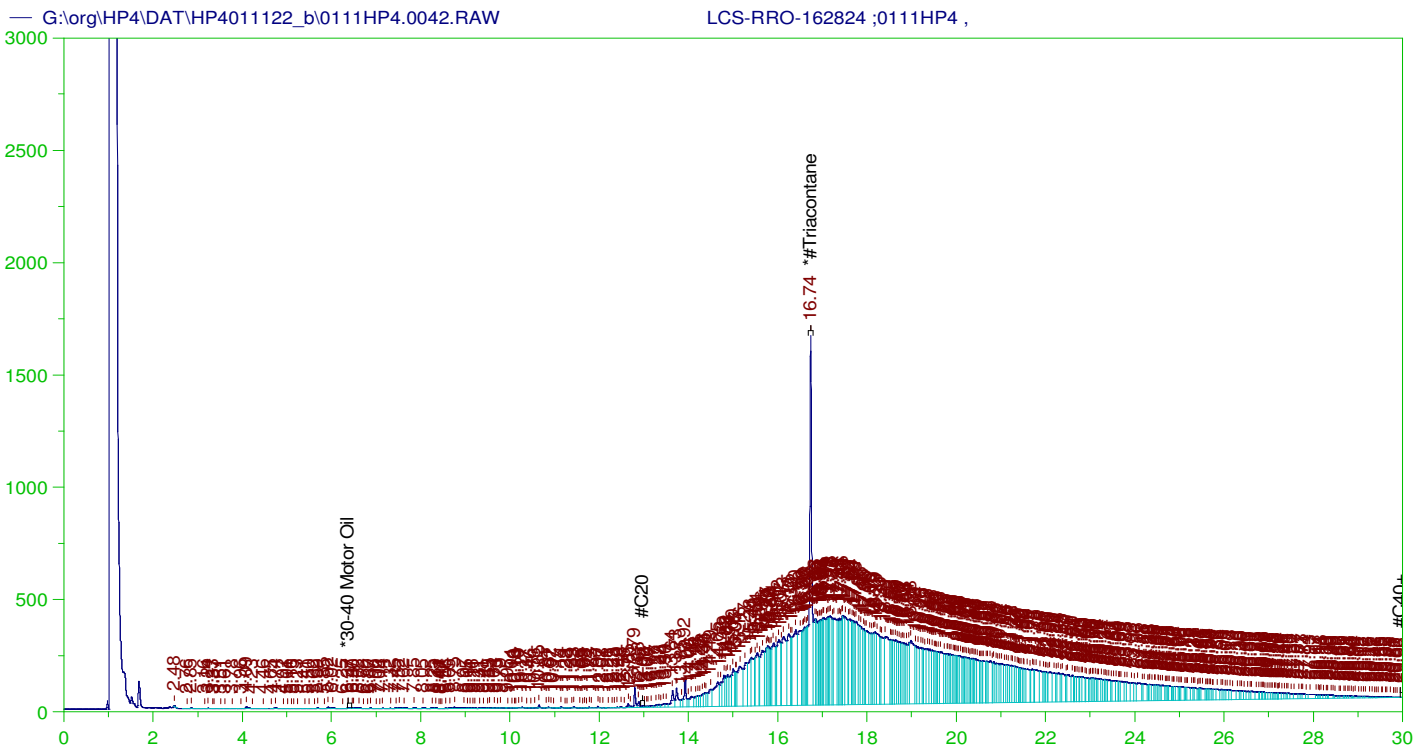
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V41
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0041.RAW
Date & Time Acquired: 1/12/2022 1:39:11 PM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.909	200.	.	.	-
*1-Chlorooctadecane	29.909	200.	.	.	-

DRO Area:488432.2 DRO Amount: 16.62845
TEH Area:1479327 TEH Amount: 50.36302



RESIDUAL RANGE ORGANICS CHROMATOGRAM

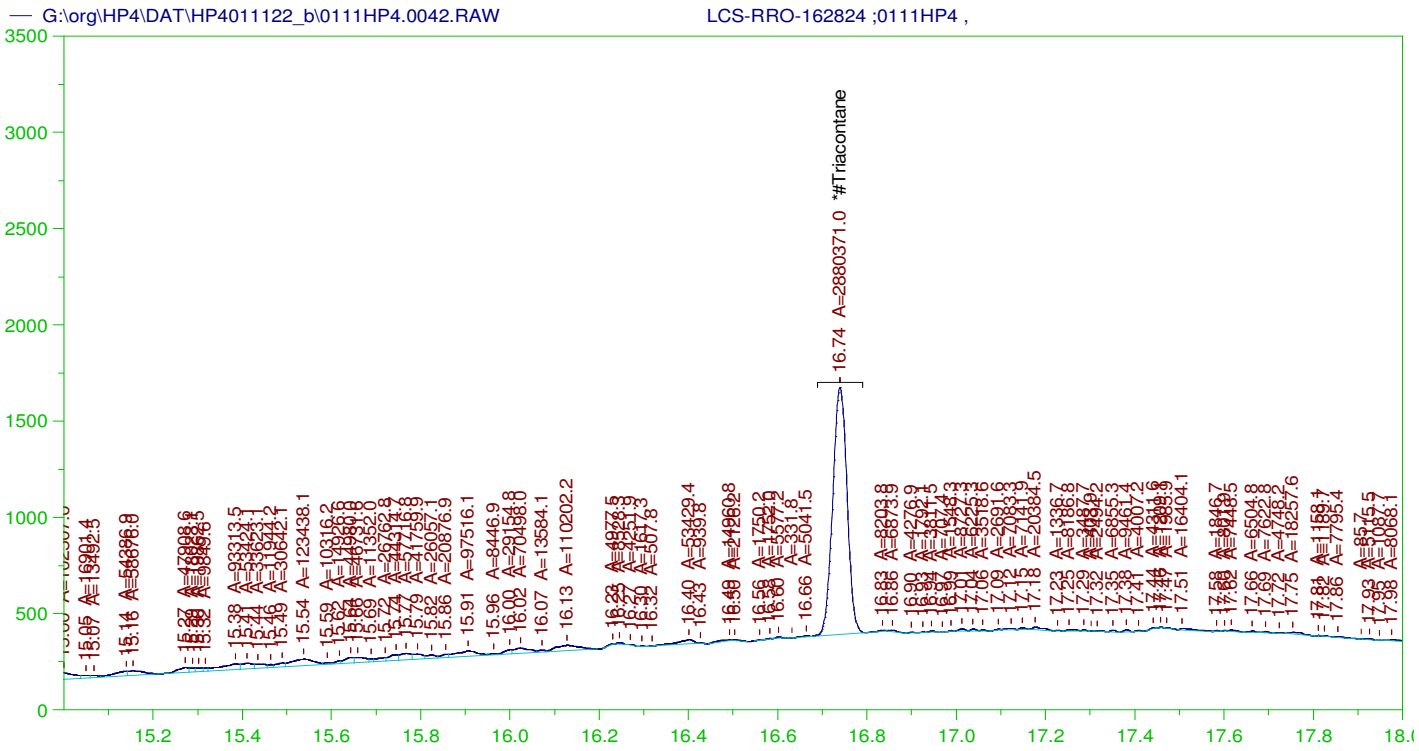
Sample Name: LCS-RRO-162824 ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0042.RAW
Date & Time Acquired: 1/12/2022 2:24:12 PM
Method File: G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.739	.5	.221	44.27	-

~~RRO~~ TEH (Oil Range) Area:1.356919E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5.531771

AMN 02/01/2022



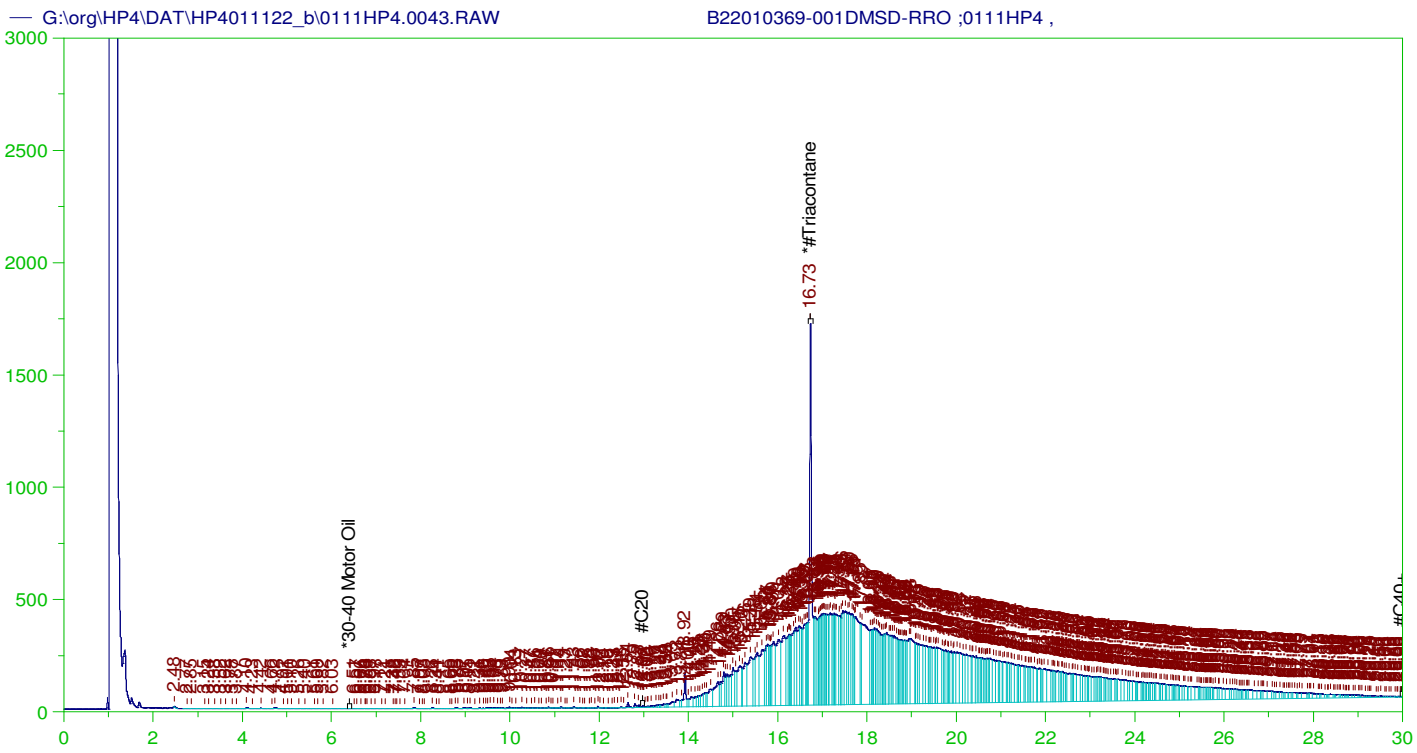
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCS-RRO-162824 ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0042.RAW
Date & Time Acquired: 1/12/2022 2:24:12 PM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.739	.5	.115	23.07	-

RRO Area:3428720 RRO AMOUNT: 0.1397791



RESIDUAL RANGE ORGANICS CHROMATOGRAM

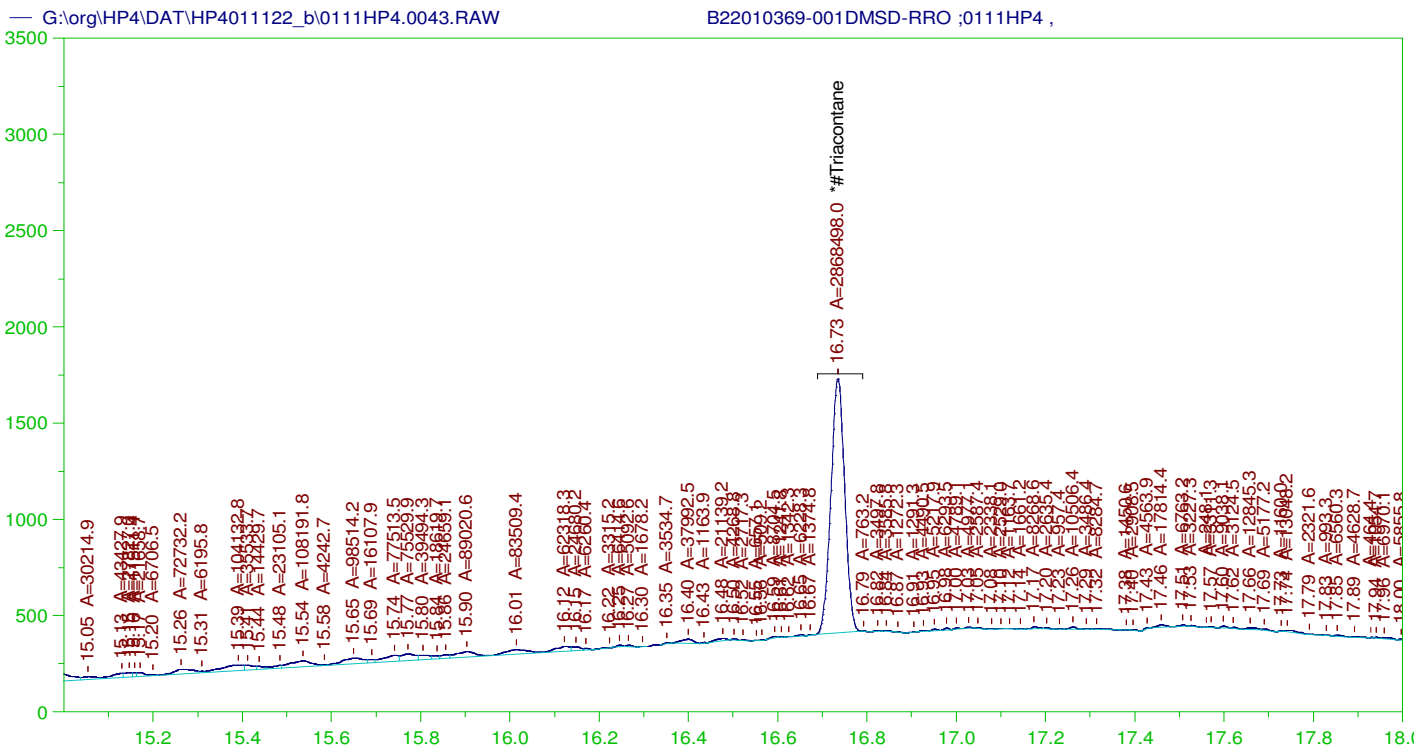
Sample Name: B22010369-001DMSD-RRO ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0043.RAW
Date & Time Acquired: 1/12/2022 3:41:00 PM
Method File: G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.735	.481	.222	46.25	-

~~RRO~~ TEH (Oil Range) Area:1.419391E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5.563893

AMN 02/01/2022



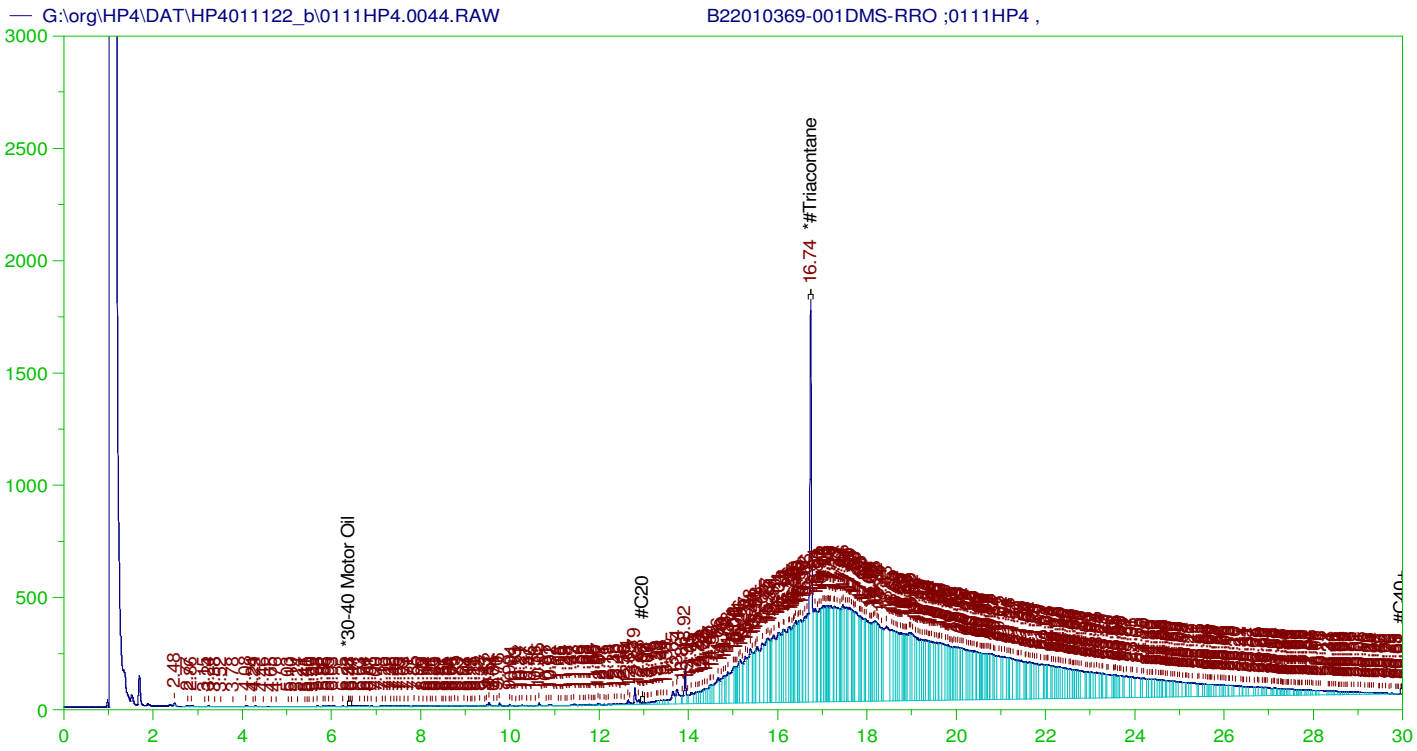
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010369-001DMSD-RRO ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0043.RAW
Date & Time Acquired: 1/12/2022 3:41:00 PM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.735	.481	.11	22.97	-

RRO Area:3078922 RRO AMOUNT: 0.1206912



RESIDUAL RANGE ORGANICS CHROMATOGRAM

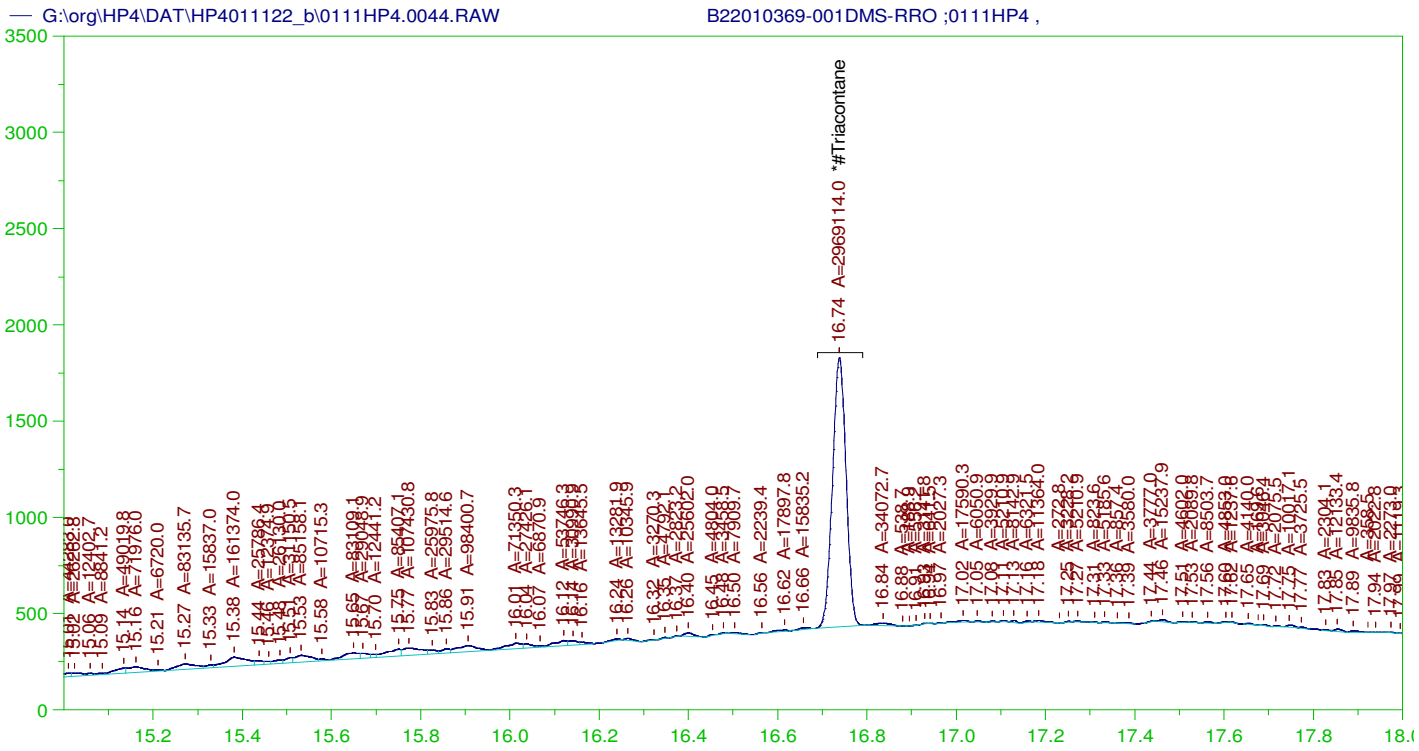
Sample Name: B22010369-001DMS-RRO ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0044.RAW
Date & Time Acquired: 1/12/2022 4:25:26 PM
Method File: G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.738	.49	.224	45.77	-

~~RRO~~ TEH (Oil Range) Area:1.489503E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5.953211

AMN 2/01/2022



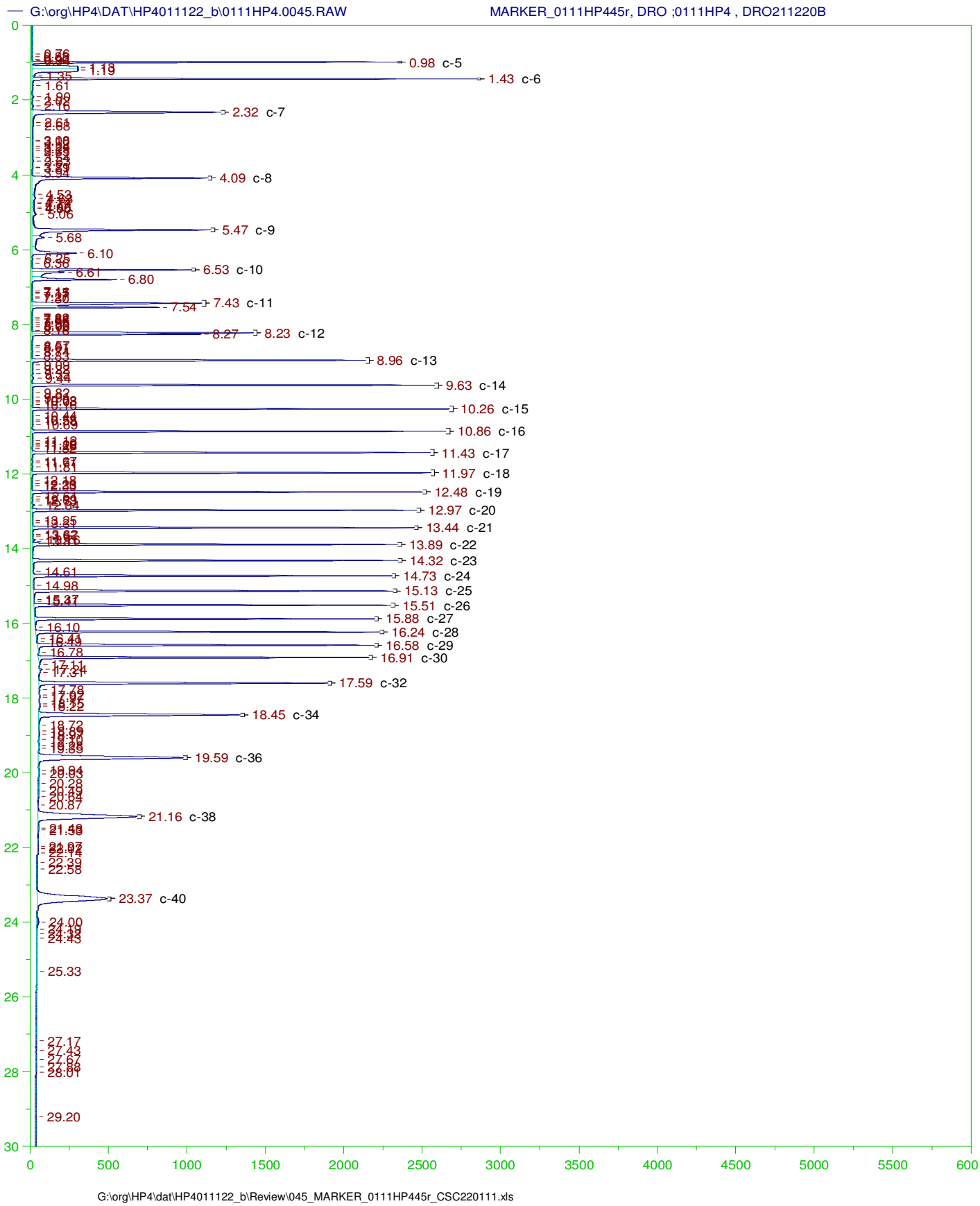
RESIDUAL RANGE ORGANICS CHROMATOGRAM

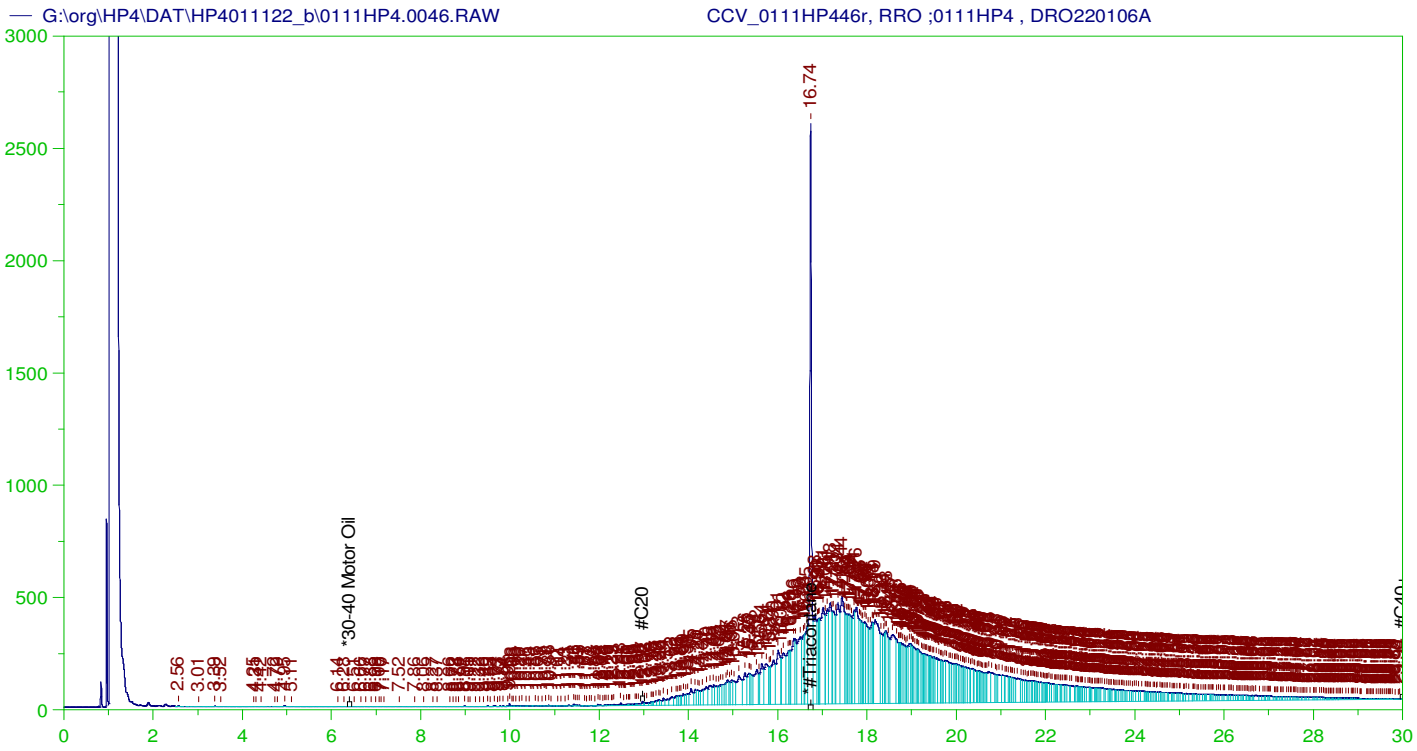
Sample Name: B22010369-001DMS-RRO ;0111HP4 ,
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0044.RAW
Date & Time Acquired: 1/12/2022 4:25:26 PM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.738	.49	.117	23.78	-

RRO Area:3322883 RRO AMOUNT: 0.1328083


G:\org\HP4\DAT\HP4011122_b\0111HP4.0045.RAW
MARKER_0111HP445r, DRO ;0111HP4 , DRO211220B
0.98 c-5
1.43 c-6
2.32 c-7
4.09 c-8
5.47 c-9
6.53 c-10
7.43 c-11
8.23 c-12
8.96 c-13
9.63 c-14
10.26 c-15
10.86 c-16
11.43 c-17
11.97 c-18
12.48 c-19
12.97 c-20
13.44 c-21
13.89 c-22
14.32 c-23
14.73 c-24
15.13 c-25
15.51 c-26
15.88 c-27
16.24 c-28
16.58 c-29
16.91 c-30
17.59 c-32
18.45 c-34
19.59 c-36
21.16 c-38
23.37 c-40
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
600
G:\org\HP4\dat\HP4011122_b\Review\045_MARKER_0111HP445r_CSC220111.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP446r, RRO ;0111HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0046.RAW
Date & Time Acquired: 1/12/2022 5:56:09 PM
Method File: G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.737	500.	312.166	62.43	-

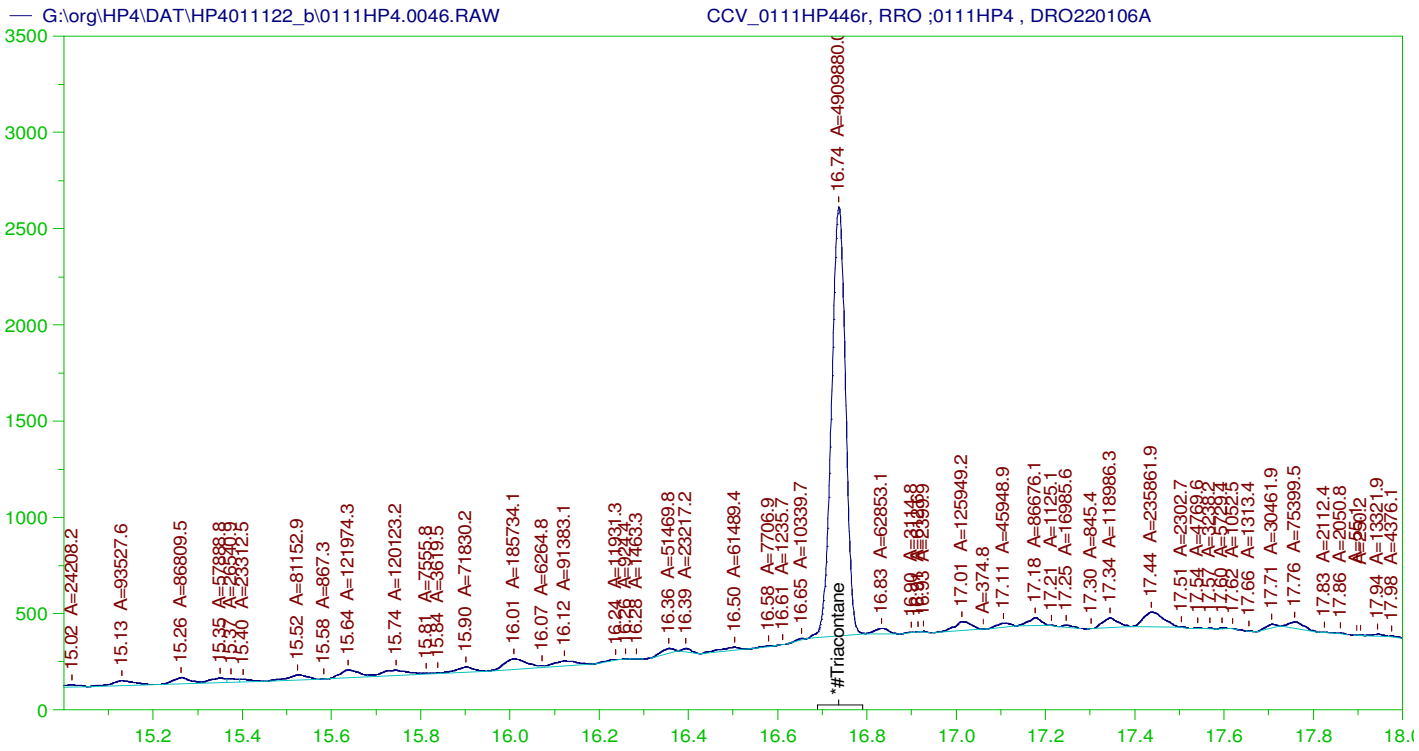
~~RRO~~ TEH (Oil Range) Area:1.139315E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4644.662

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0046.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.737	200.	312.166	156.08	75-125

AMN 02/01/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP446r, RRO ;0111HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0046.RAW
Date & Time Acquired: 1/12/2022 5:56:09 PM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

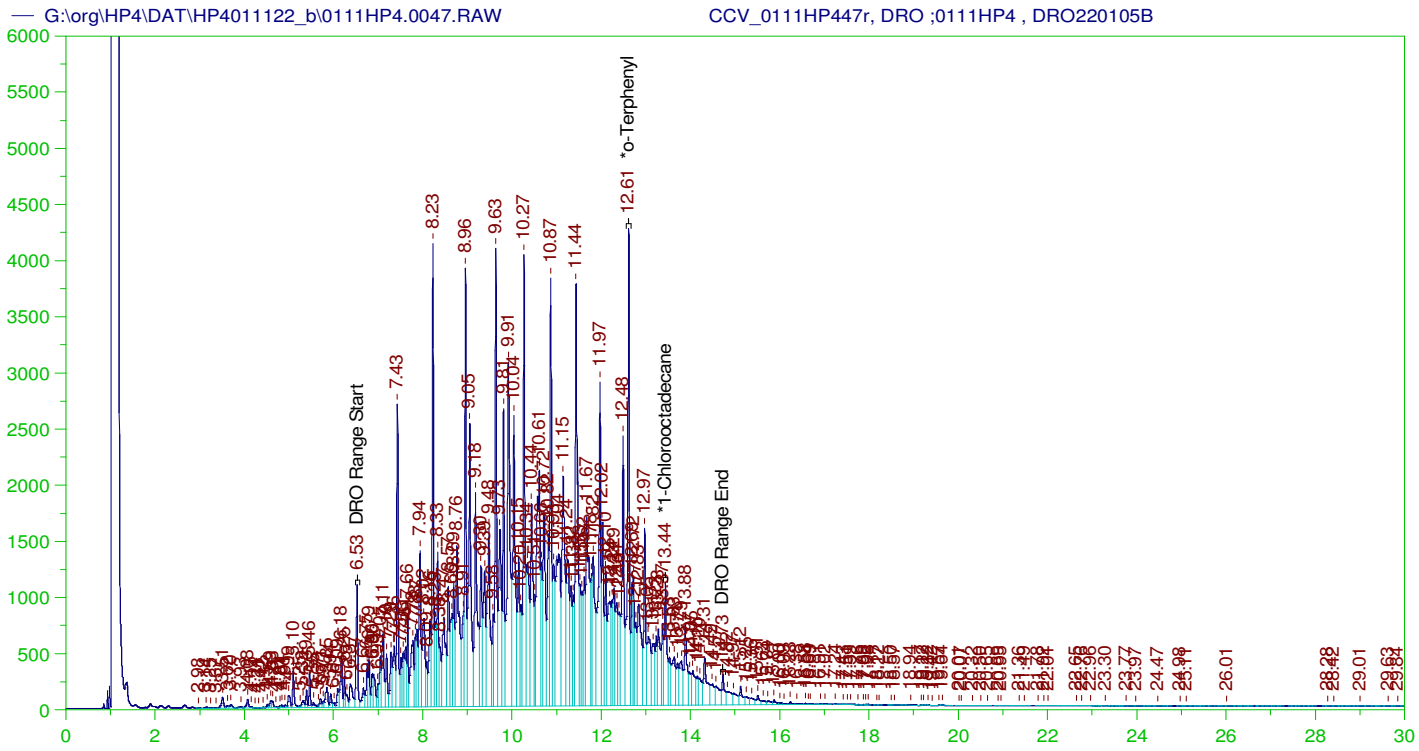
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.737	500.	196.601	39.32	-

RRO Area:3578024 RRO AMOUNT: 145.8658

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0046.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.737	200.	196.601	98.3	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0111HP447r, DRO ;0111HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0047.RAW
Date & Time Acquired: 1/12/2022 6:41:23 PM
Method File: G:\Org\HP4\methods\DC_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.611	200.	345.914	172.96	-
*1-Chlorooctadecane	13.437	200.	127.279	63.64	-

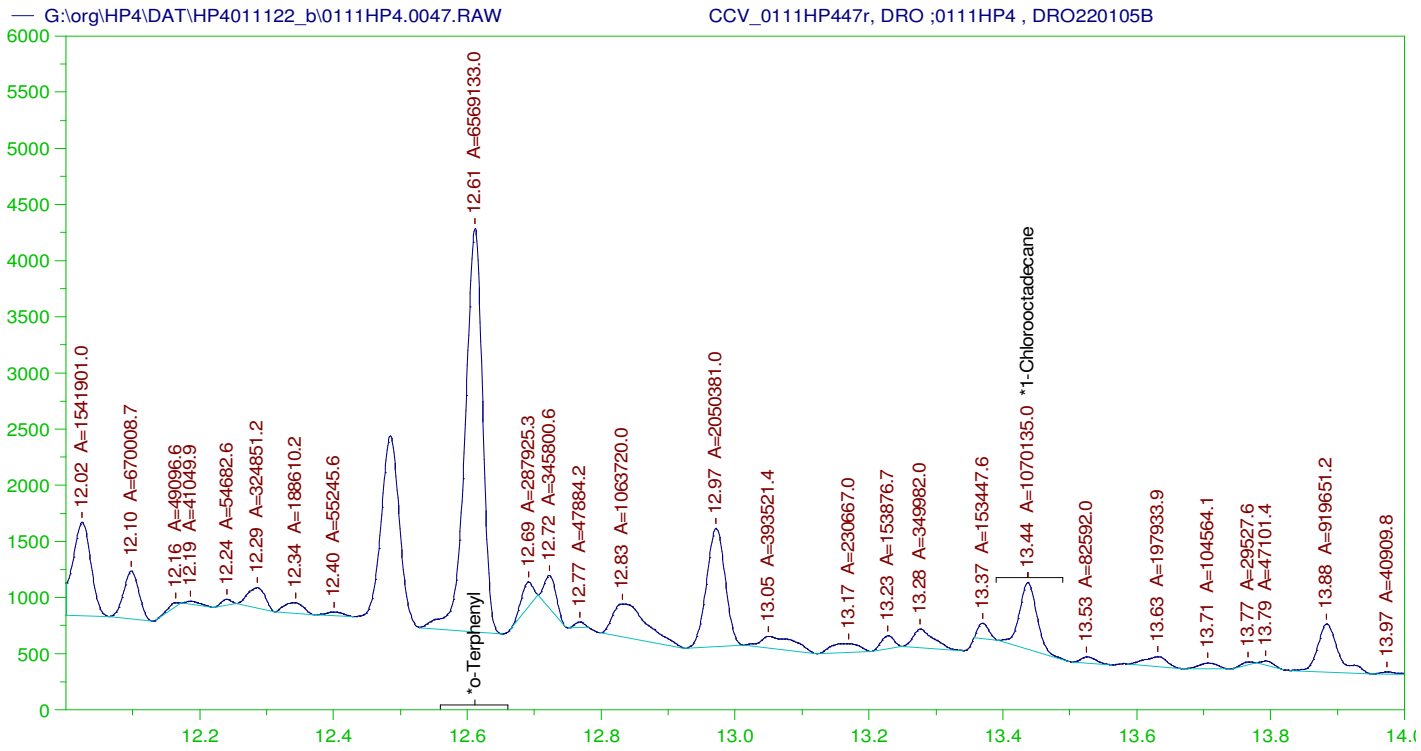
DRO Area:4.134164E+08 DRO Amount: 14074.57
TEH Area:4.284785E+08 TEH Amount: 14587.36

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0047.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14587.36	97.25	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.611	200.	345.914	172.96	85-115
*1-Chlorooctadecane	13.437	200.	127.279	63.64	85-115

G:\org\HP4\dat\HP4011122_b\Review\047_CCV_0111HP447r_DC_8015-C24-OK-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0111HP447r, DRO ;0111HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011122_b\0111HP4.0047.RAW
Date & Time Acquired: 1/12/2022 6:41:23 PM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

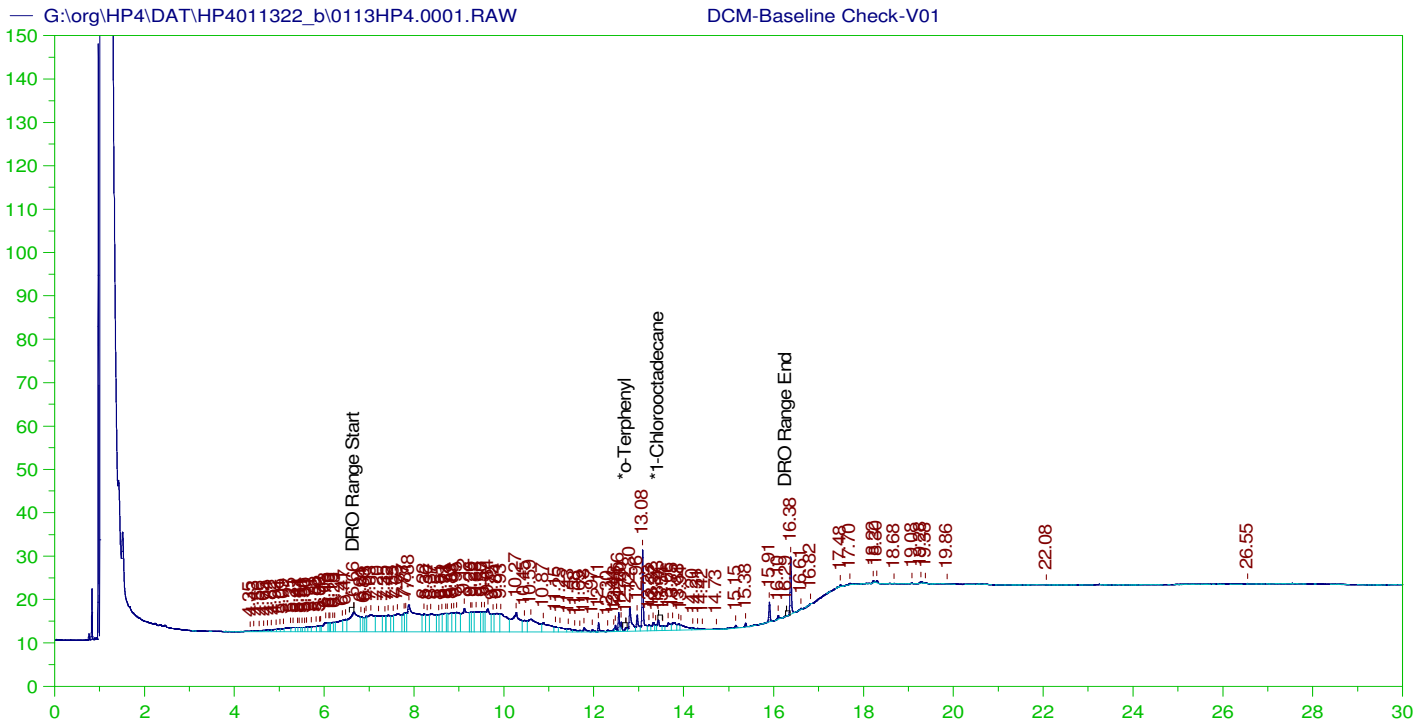
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.611	200.	197.155	98.58	-
*1-Chlorooctadecane	13.437	200.	32.117	16.06	-

DRO Area:1.78094E+08 DRO Amount: 6063.13
TEH Area:1.876043E+08 TEH Amount: 6386.902

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011122_b\0111HP4.0047.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	6386.9	42.58	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.611	200.	197.155	98.58	85-115
*1-Chlorooctadecane	13.437	200.	32.117	16.06	85-115



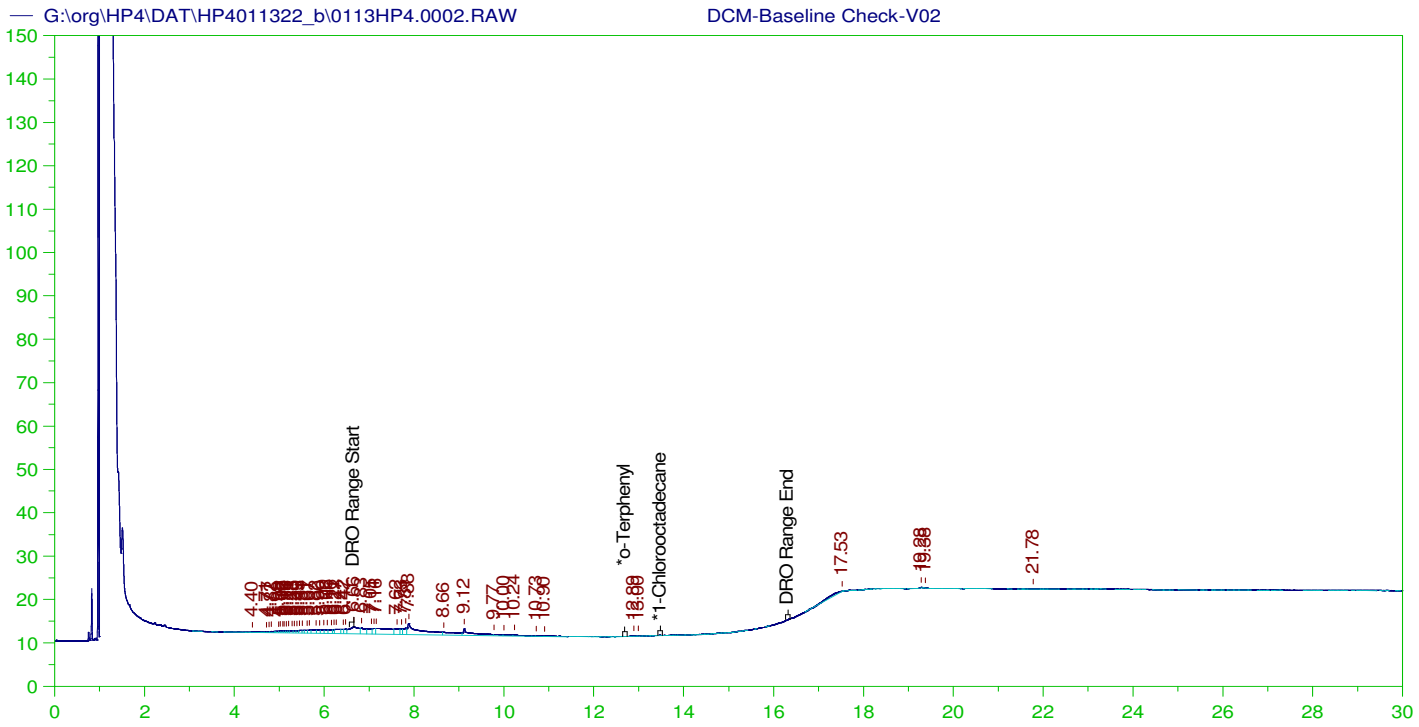
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V01
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0001.RAW
Date & Time Acquired: 1/13/2022 7:16:05 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.716	200.	.097	.05	-
*1-Chlorooctadecane	13.433	200.	.312	.16	-

DRO Area:1231615 DRO Amount: 41.92979
TEH Area:1422824 TEH Amount: 48.43939



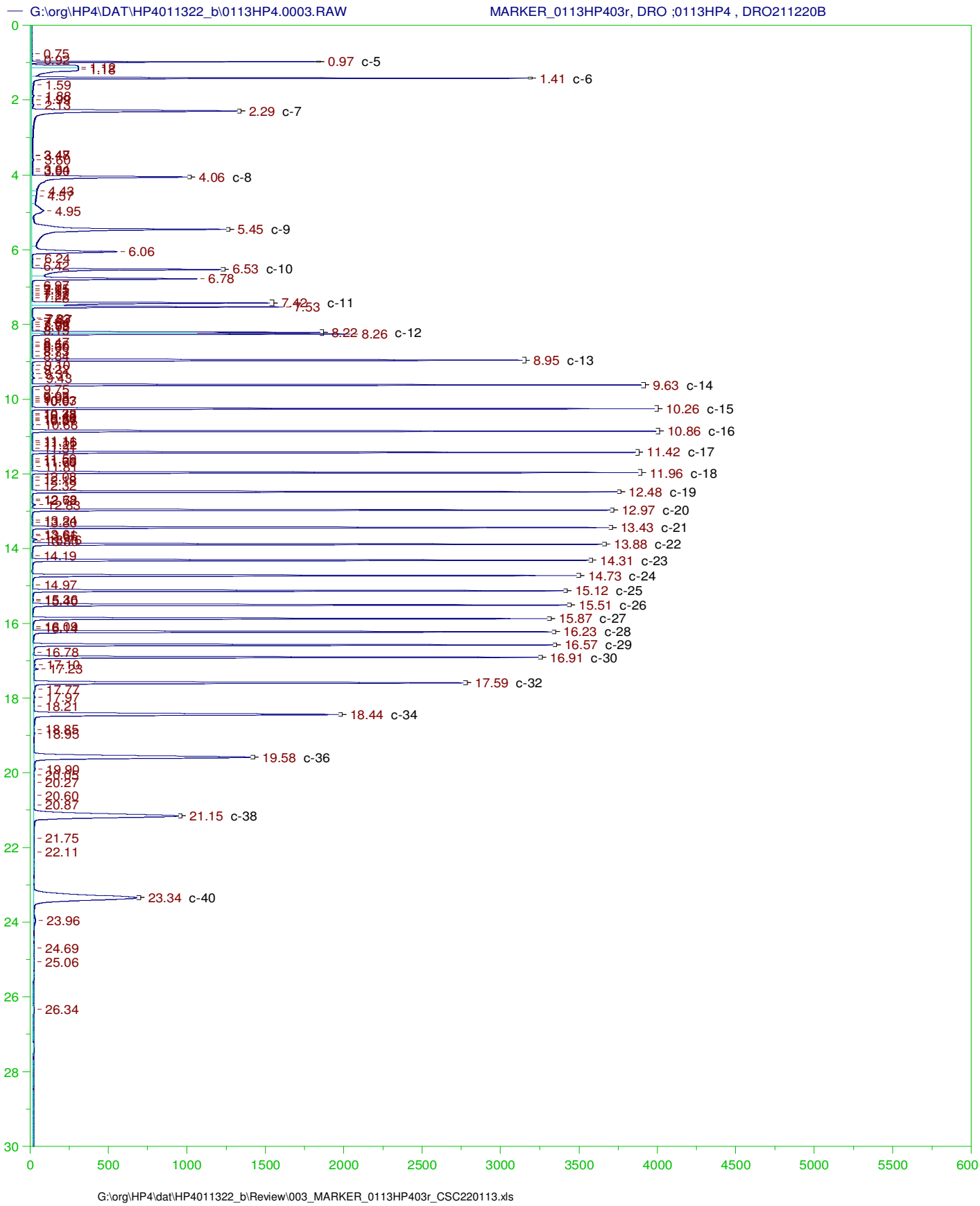
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

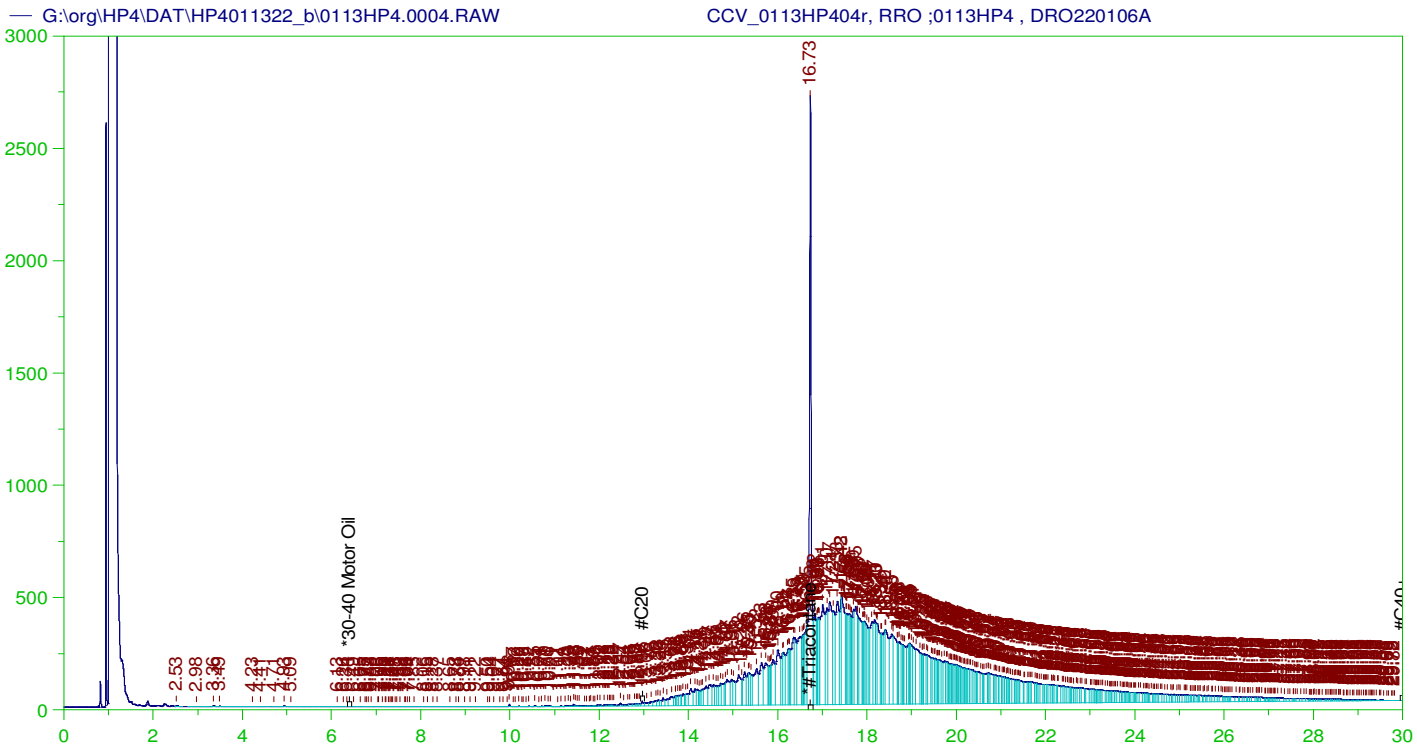
Sample Name: DCM-Baseline Check-V02
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0002.RAW
Date & Time Acquired: 1/13/2022 8:00:35 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.905	200.	.	.	-
*1-Chlorooctadecane	29.905	200.	.	.	-

DRO Area:189136.5 DRO Amount: 6.439069
TEH Area:279835.5 TEH Amount: 9.526875


G:\org\HP4\DAT\HP4011322_b\0113HP4.0003.RAW
MARKER_0113HP403r, DRO ;0113HP4 , DRO211220B
0.97 c-5
1.41 c-6
2.29 c-7
4.06 c-8
4.95
5.45 c-9
6.06
6.53 c-10
6.78
7.42
7.53 c-11
8.22
8.26 c-12
8.95 c-13
9.63 c-14
10.26 c-15
10.86 c-16
11.42 c-17
11.96 c-18
12.48 c-19
12.97 c-20
13.43 c-21
13.88 c-22
14.31 c-23
14.73 c-24
15.12 c-25
15.51 c-26
15.87 c-27
16.23 c-28
16.57 c-29
16.91 c-30
17.59 c-32
18.44 c-34
19.58 c-36
21.15 c-38
23.34 c-40
G:\org\HP4\dat\HP4011322_b\Review\003_MARKER_0113HP403r_CSC220113.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0113HP404r, RRO ;0113HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0004.RAW
Date & Time Acquired: 1/13/2022 9:30:21 AM
Method File: G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.73	500.	313.049	62.61	-

~~RRO~~ TEH (Oil Range) Area:1.152662E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4699.074

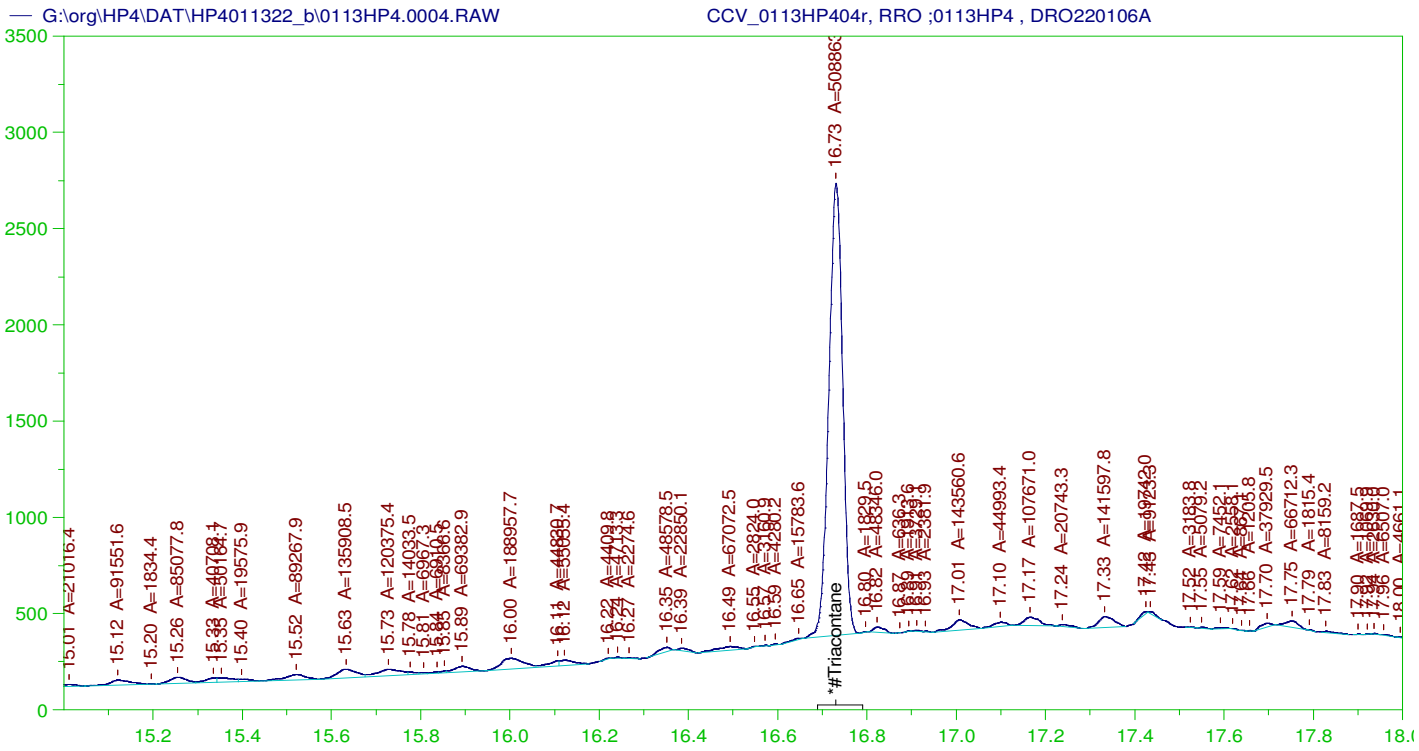
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011322_b\0113HP4.0004.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.73	200.	313.049	156.52	75-125

AMN 02/01/2022

G:\org\HP4\dat\HP4011322_b\Review\004_CCV_0113HP404r_DC_ORO-T-AD-L%.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0113HP404r, RRO ;0113HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0004.RAW
Date & Time Acquired: 1/13/2022 9:30:21 AM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

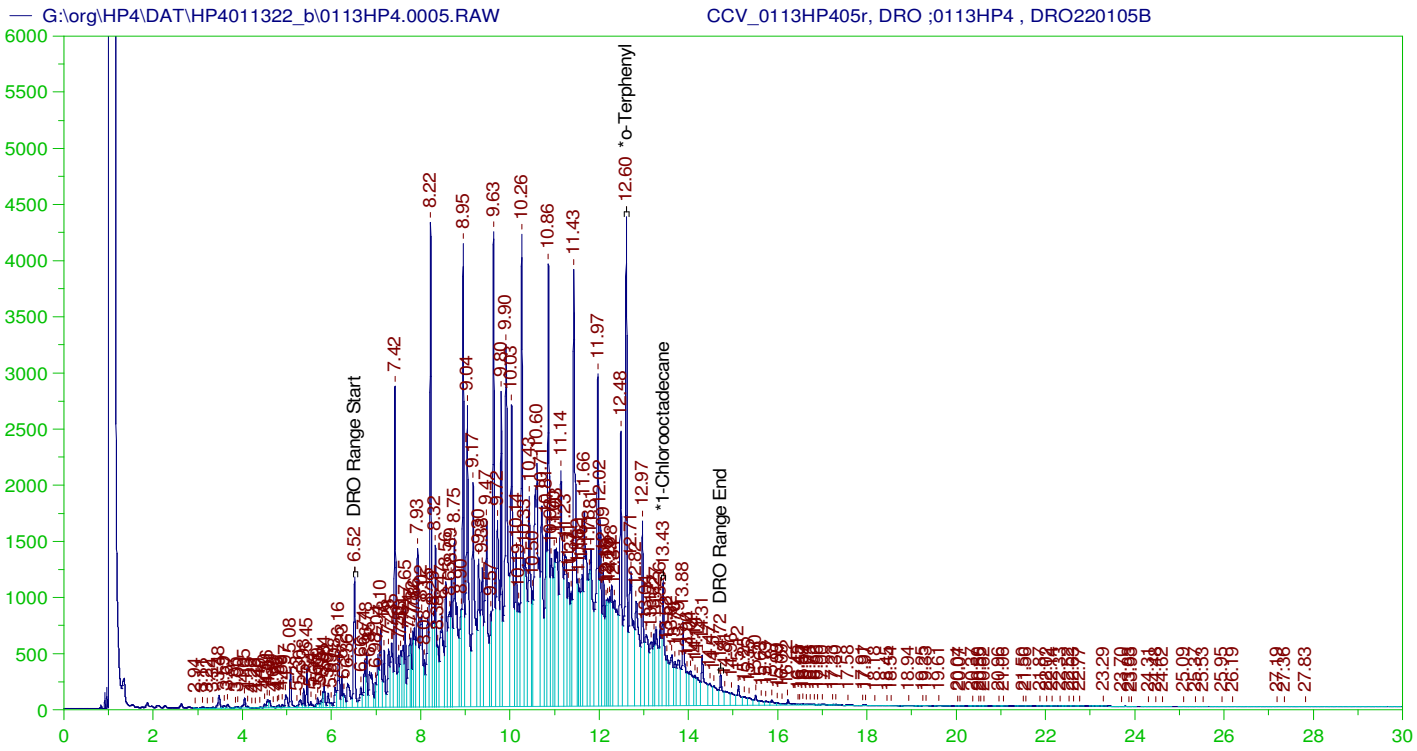
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.73	500.	203.759	40.75	-

RRO Area:3310581 RRO AMOUNT: 134.9629

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011322_b\0113HP4.0004.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.73	200.	203.759	101.88	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0113HP405r, DRO ;0113HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0005.RAW
Date & Time Acquired: 1/13/2022 10:15:24 AM
Method File: G:\Org\HP4\methods\DC_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.604	200.	351.519	175.76	-
*1-Chlorooctadecane	13.431	200.	114.357	57.18	-

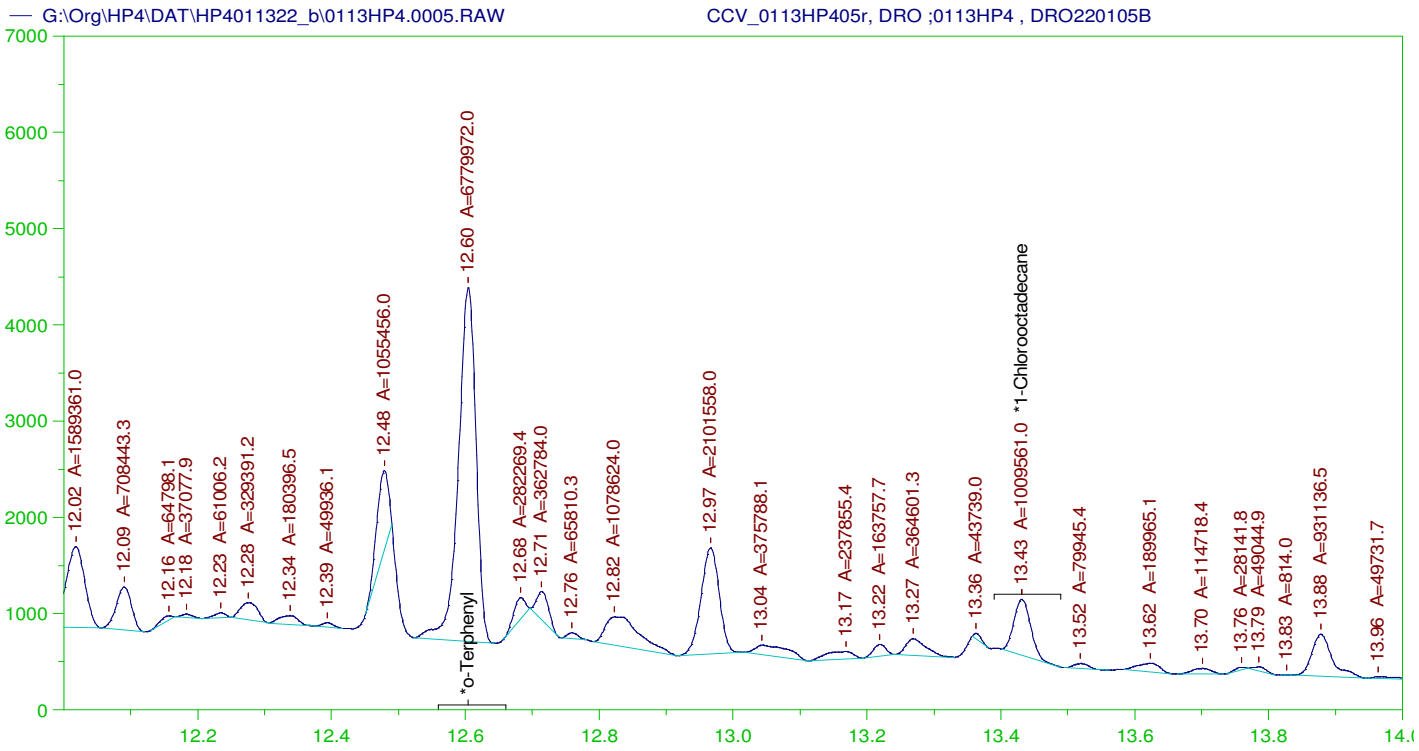
DRO Area:4.268334E+08 DRO Amount: 14531.35
TEH Area:4.428855E+08 TEH Amount: 15077.84

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011322_b\0113HP4.0005.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15077.84	100.52	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.604	200.	351.519	175.76	85-115
*1-Chlorooctadecane	13.431	200.	114.357	57.18	85-115

G:\org\HP4\dat\HP4011322_b\Review\005_CCV_0113HP405r_DC_8015-C24-OK-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0113HP405r, DRO ;0113HP4 , DRO220105B
Raw File: G:\Org\HP4\DAT\HP4011322_b\0113HP4.0005.RAW
Date & Time Acquired: 1/13/2022 10:15:24 AM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

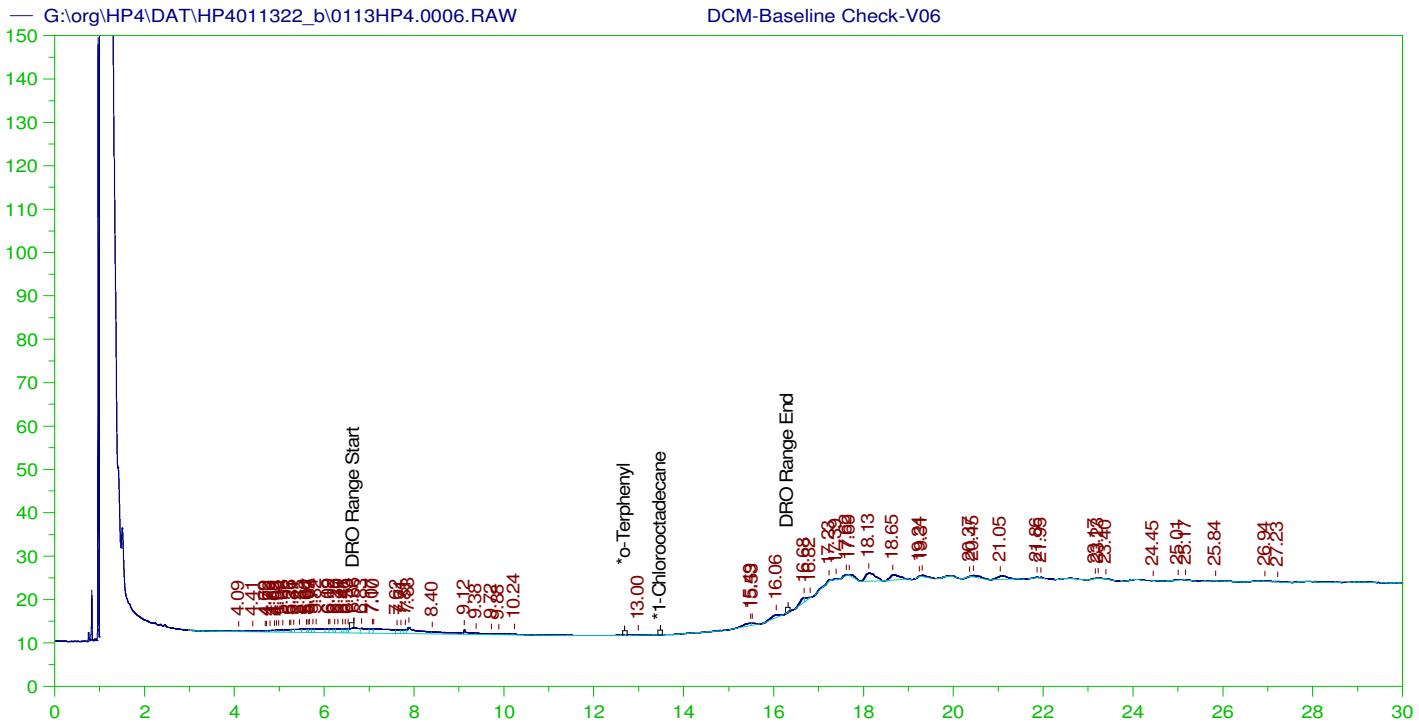
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.604	200.	203.482	101.74	-
*1-Chlorooctadecane	13.431	200.	30.299	15.15	-

DRO Area:1.844992E+08 DRO Amount: 6281.193
TEH Area:1.945652E+08 TEH Amount: 6623.886

CONTINUING CALIBRATION REPORT: G:\Org\HP4\DAT\HP4011322_b\0113HP4.0005.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	6623.89	44.16	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.604	200.	203.482	101.74	85-115
*1-Chlorooctadecane	13.431	200.	30.299	15.15	85-115

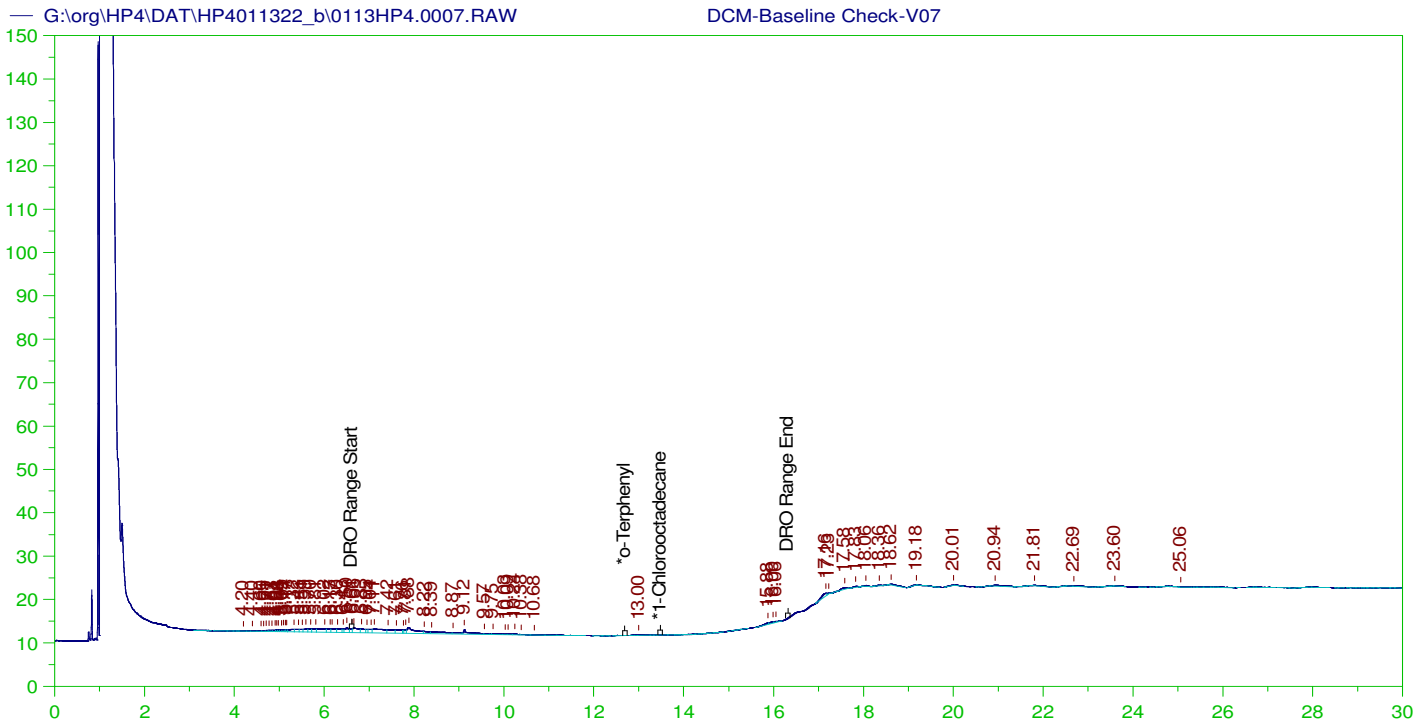


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V06
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0006.RAW
Date & Time Acquired: 1/13/2022 11:00:33 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.926	200.	.	.	-
*1-Chlorooctadecane	29.926	200.	.	.	-

DRO Area:147465.8 DRO Amount: 5.020405
TEH Area:342136.2 TEH Amount: 11.64787



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

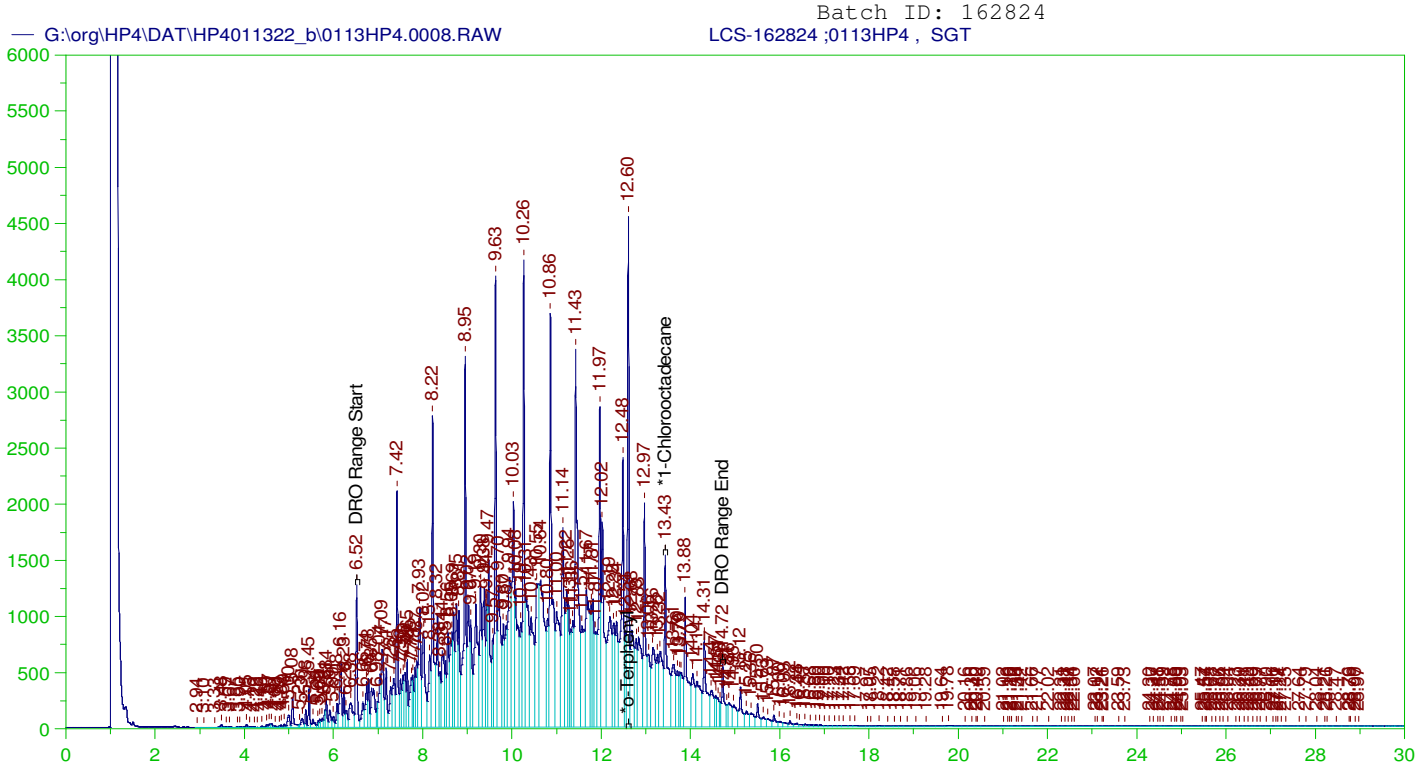
Sample Name: DCM-Baseline Check-V07
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0007.RAW
Date & Time Acquired: 1/13/2022 11:45:31 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.867	200.	.	.	-
*1-Chlorooctadecane	29.867	200.	.	.	-

DRO Area:123358.5 DRO Amount: 4.199683
TEH Area:227490.2 TEH Amount: 7.744802

Batch ID: 162824



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

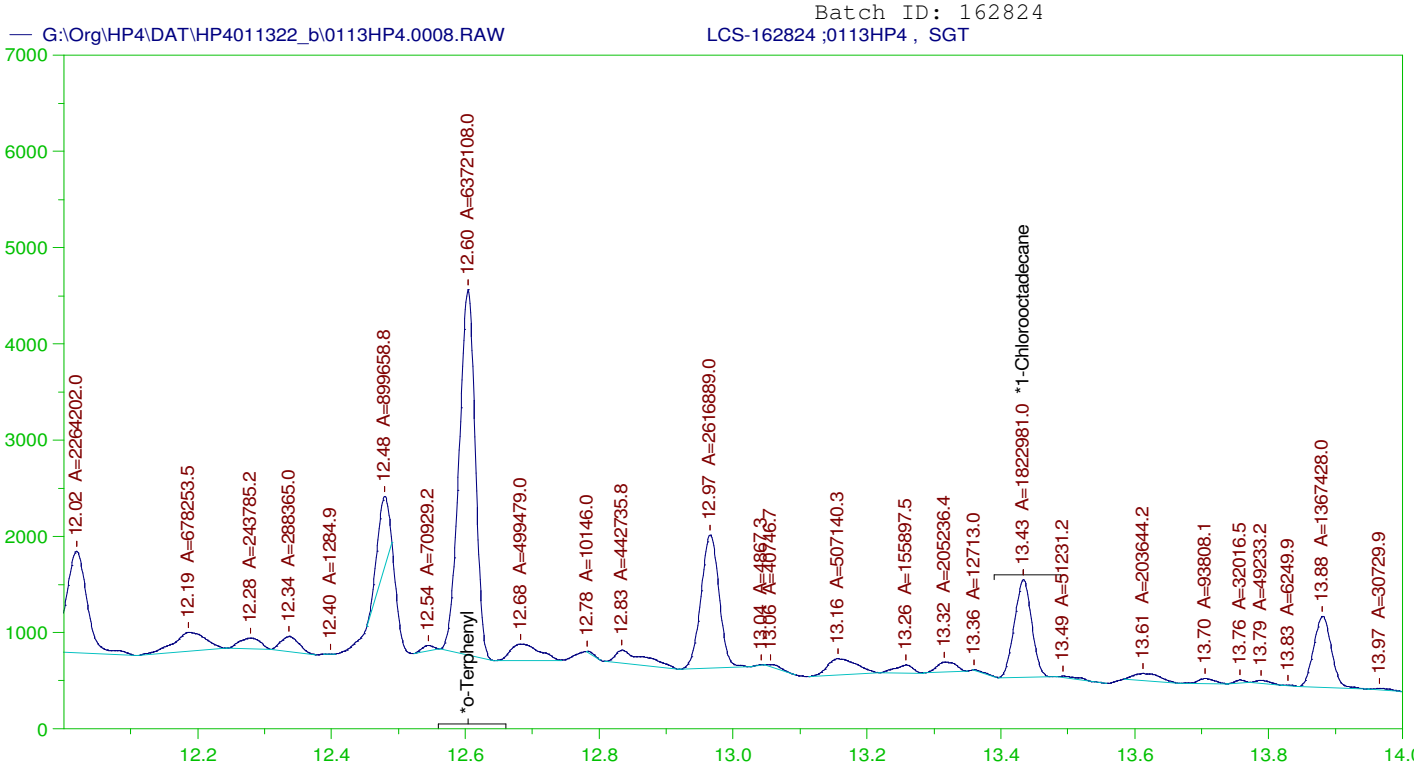
Sample Name: LCS-162824 ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0008.RAW
Date & Time Acquired: 1/13/2022 12:30:25 PM
Method File: G:\Org\HP4\methods\D3_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.604	.2	.303	151.53	-
*1-Chlorooctadecane	13.434	.2	.204	101.87	-

DRO Area:3.782224E+08 DRO Amount: 12.87641
TEH Area:4.012181E+08 TEH Amount: 13.65929

Batch ID: 162824



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

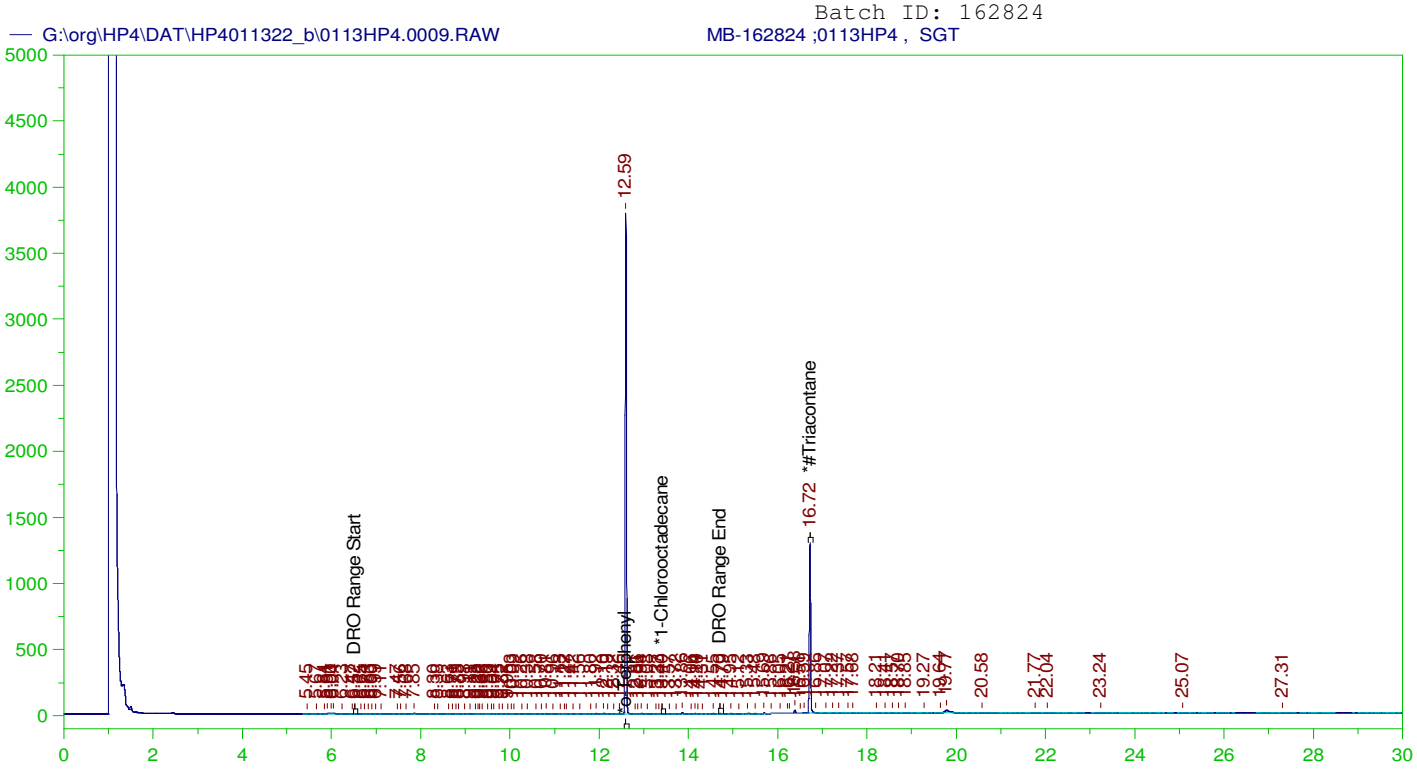
Sample Name: LCS-162824 ;0113HP4 , SGT
Raw File: G:\Org\HP4\DAT\HP4011322_b\0113HP4.0008.RAW
Date & Time Acquired: 1/13/2022 12:30:25 PM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.604	.2	.191	95.62	-
*1-Chlorooctadecane	13.434	.2	.055	27.36	-

DRO Area:1.502726E+08 DRO Amount: 5.115963
TEH Area:1.604559E+08 TEH Amount: 5.46265

Batch ID: 162824



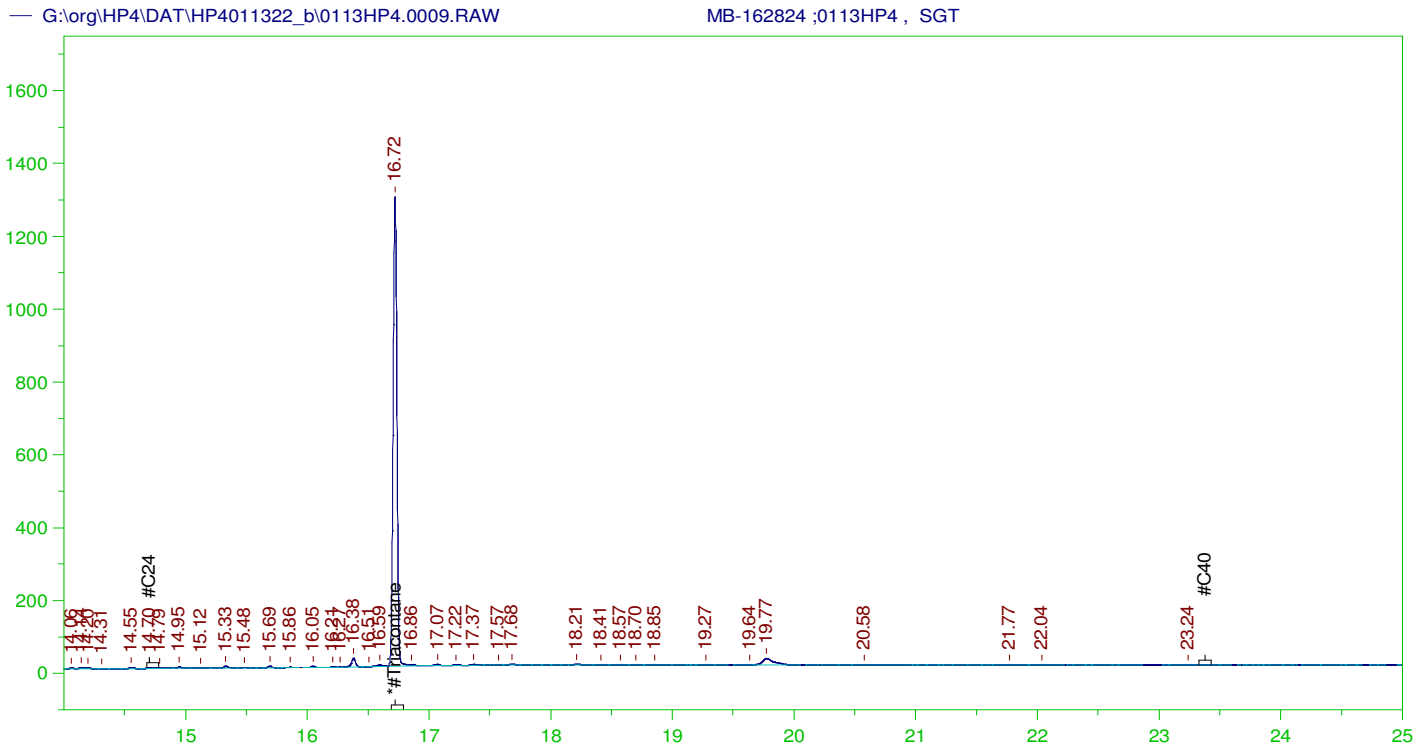
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162824 ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0009.RAW
Date & Time Acquired: 1/13/2022 1:17:27 PM
Method File: G:\Org\HP4\methods\DR_8015-C24Ta-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.595	.2	.2	100.07	-
*1-Chlorooctadecane	13.403	.2	.	.09	-
*#Triacontane	16.721	.2	.111	55.37	-

DRO Area:266941.2 DRO Amount: 9.087892E-03
TEH Area:654284.3 TEH Amount: 2.227481E-02



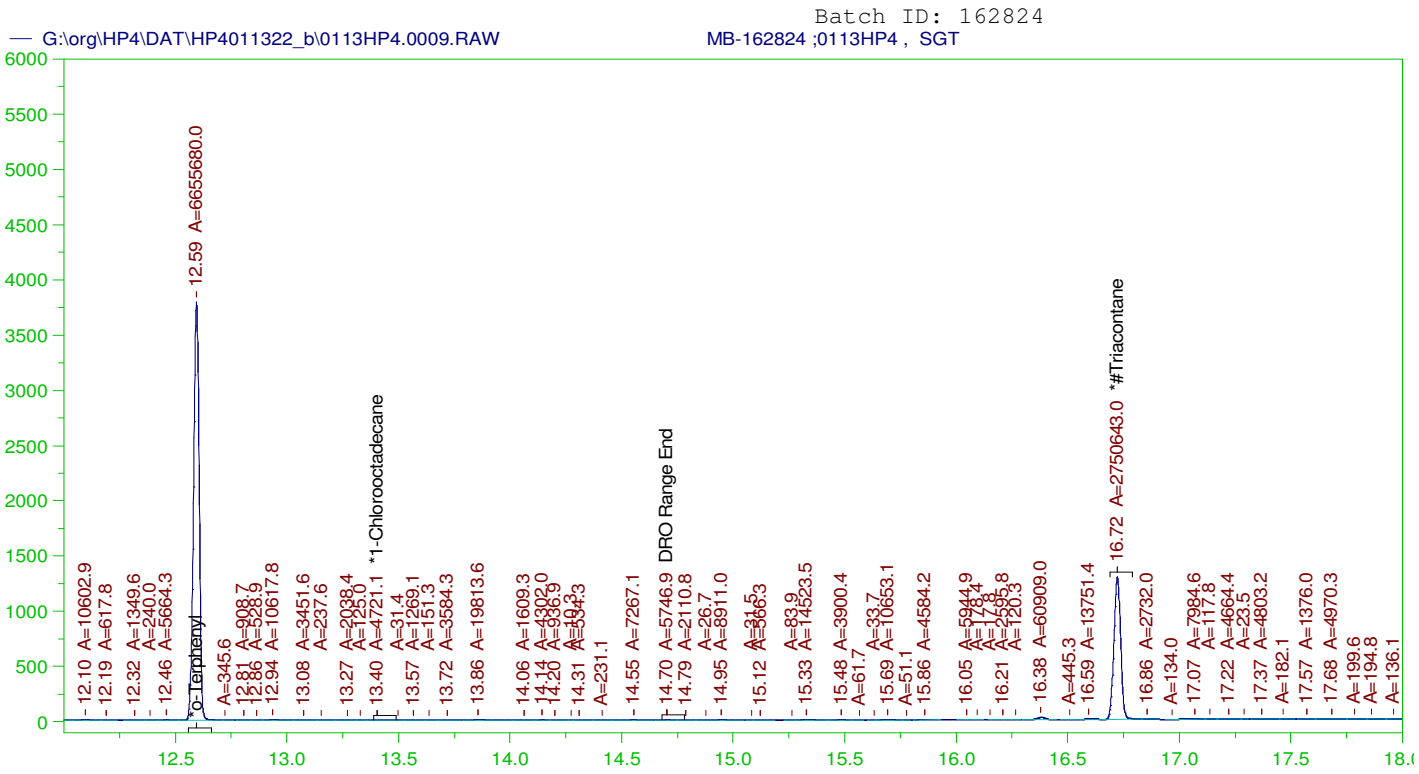
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: MB-162824 ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0009.RAW
Date & Time Acquired: 1/13/2022 1:17:27 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.721	.5	.111	22.15	-

RRO Area:330571.9 RRO AMOUNT: 1.347647E-02



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162824 ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0009.RAW
Date & Time Acquired: 1/13/2022 1:17:27 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

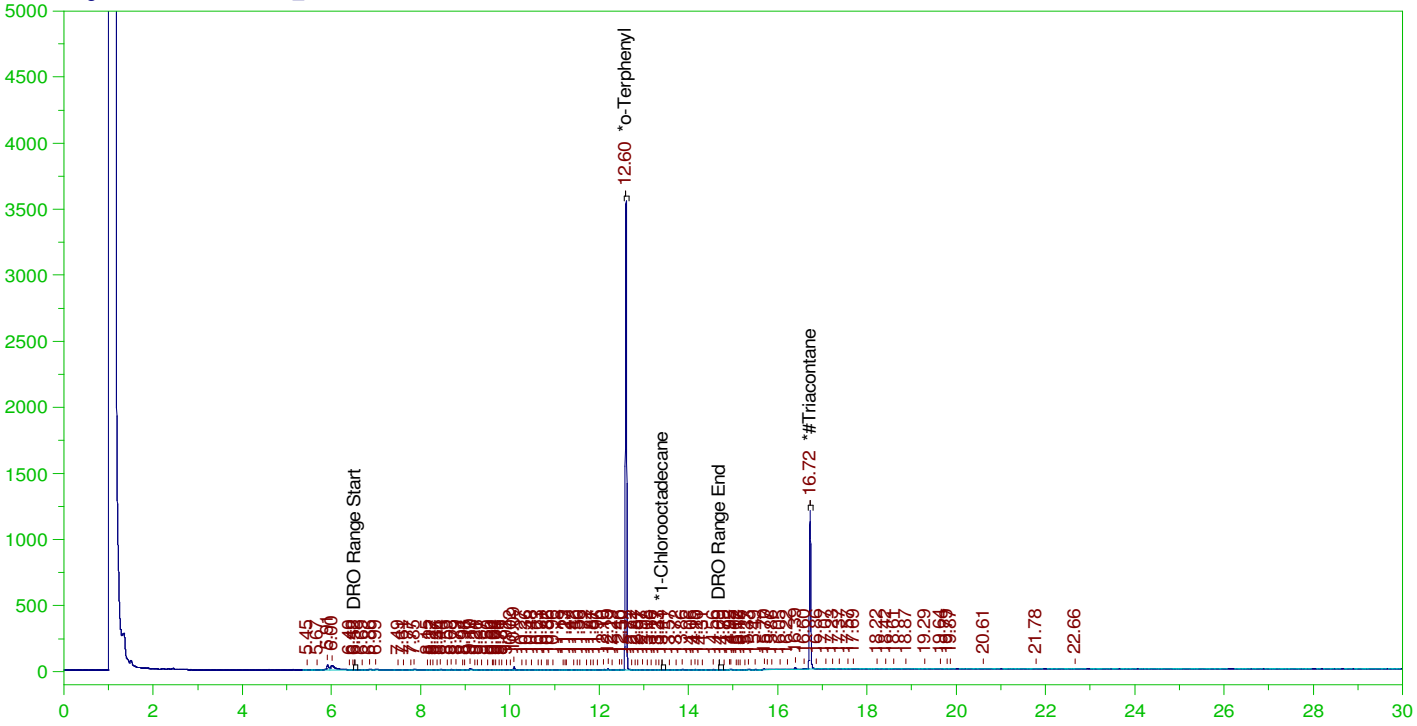
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.595	.2	.2	99.88	-
*1-Chlorooctadecane	13.403	.2	.	.07	-
*#Triacontane	16.721	.2	.11	55.07	-

DRO Area:199840.5 DRO Amount: 6.803478E-03
TEH Area:579283.2 TEH Amount: 1.972144E-02

ERH2330 (RHMW05 w/MS/MSD vols) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0010.RAW B22010369-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010369-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0010.RAW
Date & Time Acquired: 1/13/2022 2:02:22 PM
Method File: G:\Org\HP4\methods\DR_8015-C24Ta-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

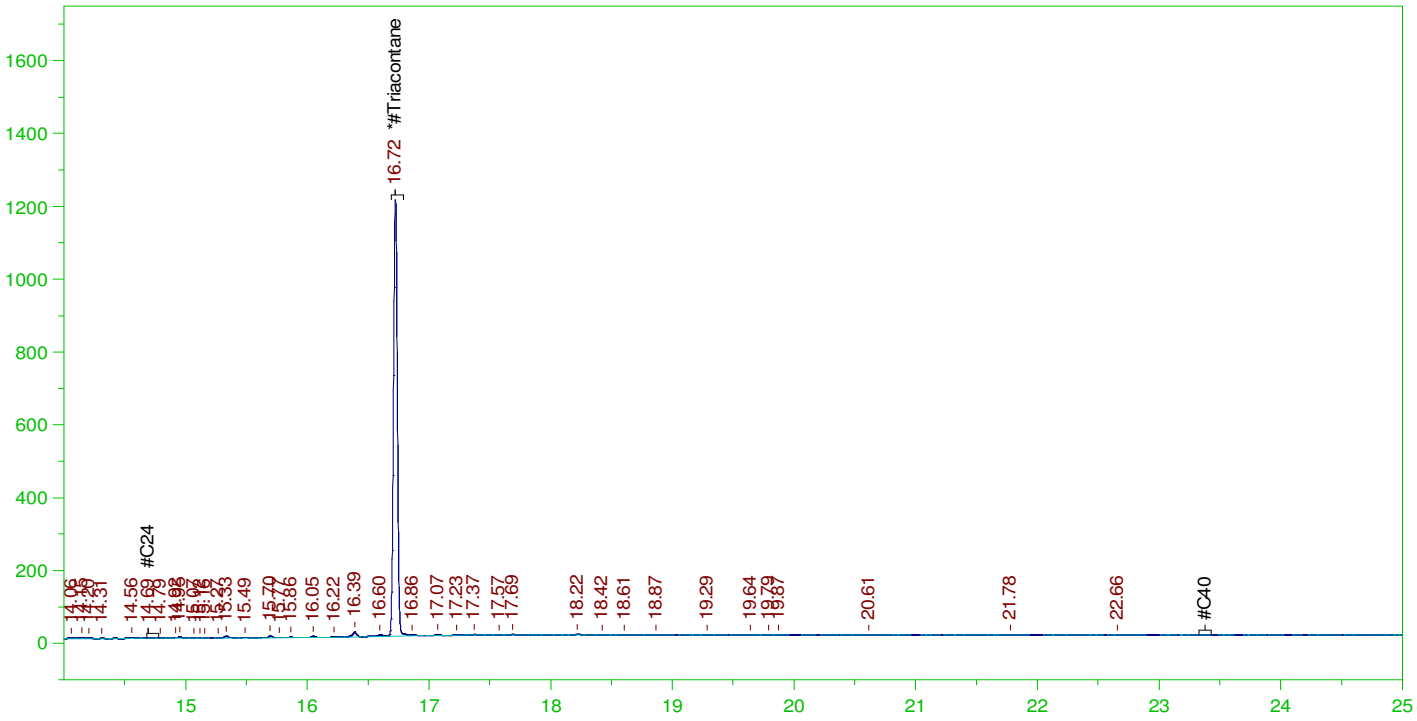
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.599	.196	.184	93.97	-
*1-Chlorooctadecane	13.406	.196	. .07		-
*#Triacontane	16.725	.196	.102	51.96	-

DRO Area:415978.4 DRO Amount: 1.388412E-02
TEH Area:976401.3 TEH Amount: 3.258936E-02

ERH2330 (RHMW05 w/MS/MSD vols) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0010.RAW B22010369-001D ;0113HP4 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010369-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0010.RAW
Date & Time Acquired: 1/13/2022 2:02:22 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

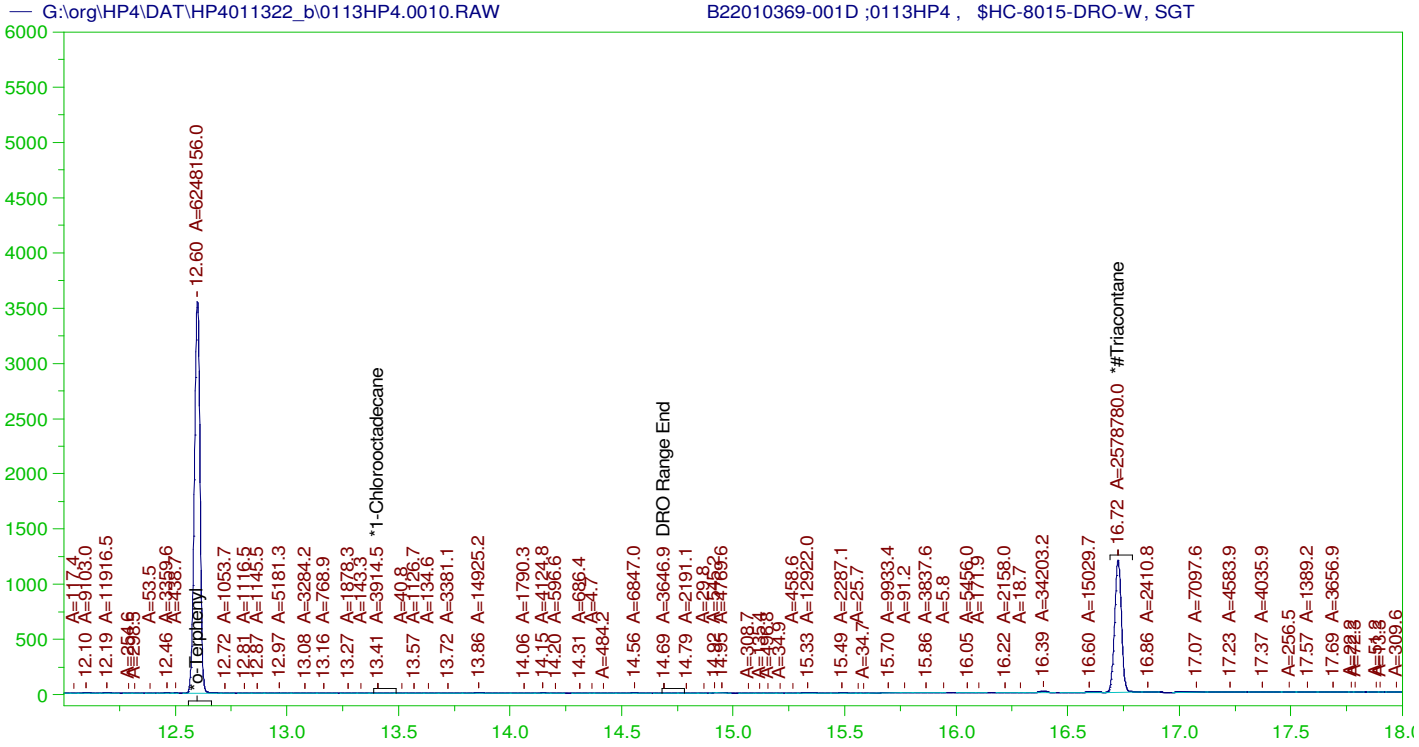
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.725	.49	.102	20.79	-

RRO Area:172374 RRO AMOUNT: 6.889408E-03

ERH2330 (RHMW05 w/MS/MSD vols) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0010.RAW B22010369-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

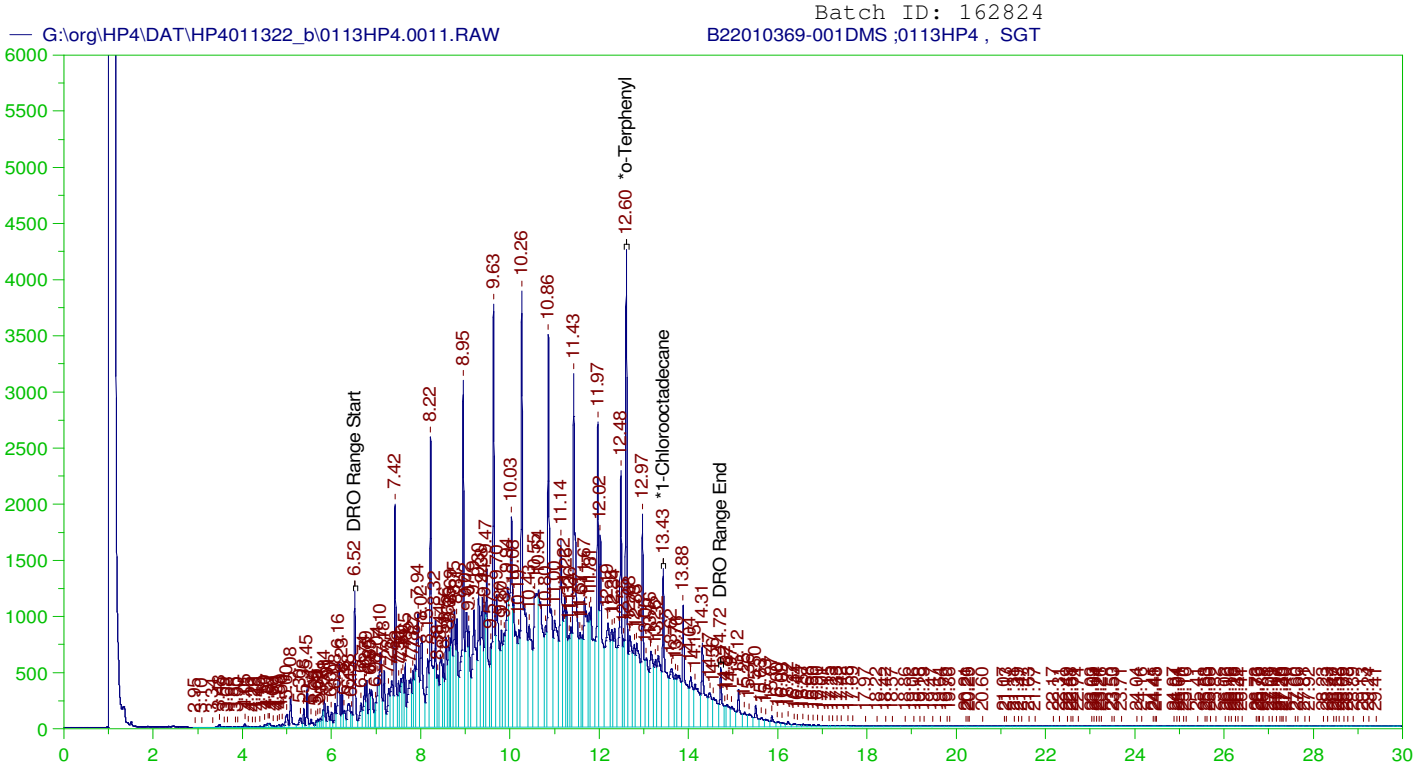
Sample Name: B22010369-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0010.RAW
Date & Time Acquired: 1/13/2022 2:02:22 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.599	.196	.184	93.76	-
*1-Chlorooctadecane	13.406	.196	.	.06	-
*#Triacontane	16.725	.196	.101	51.63	-

DRO Area:425990.9 DRO Amount: 0.0142183
TEH Area:1037618 TEH Amount: 3.463259E-02

Batch ID: 162824



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

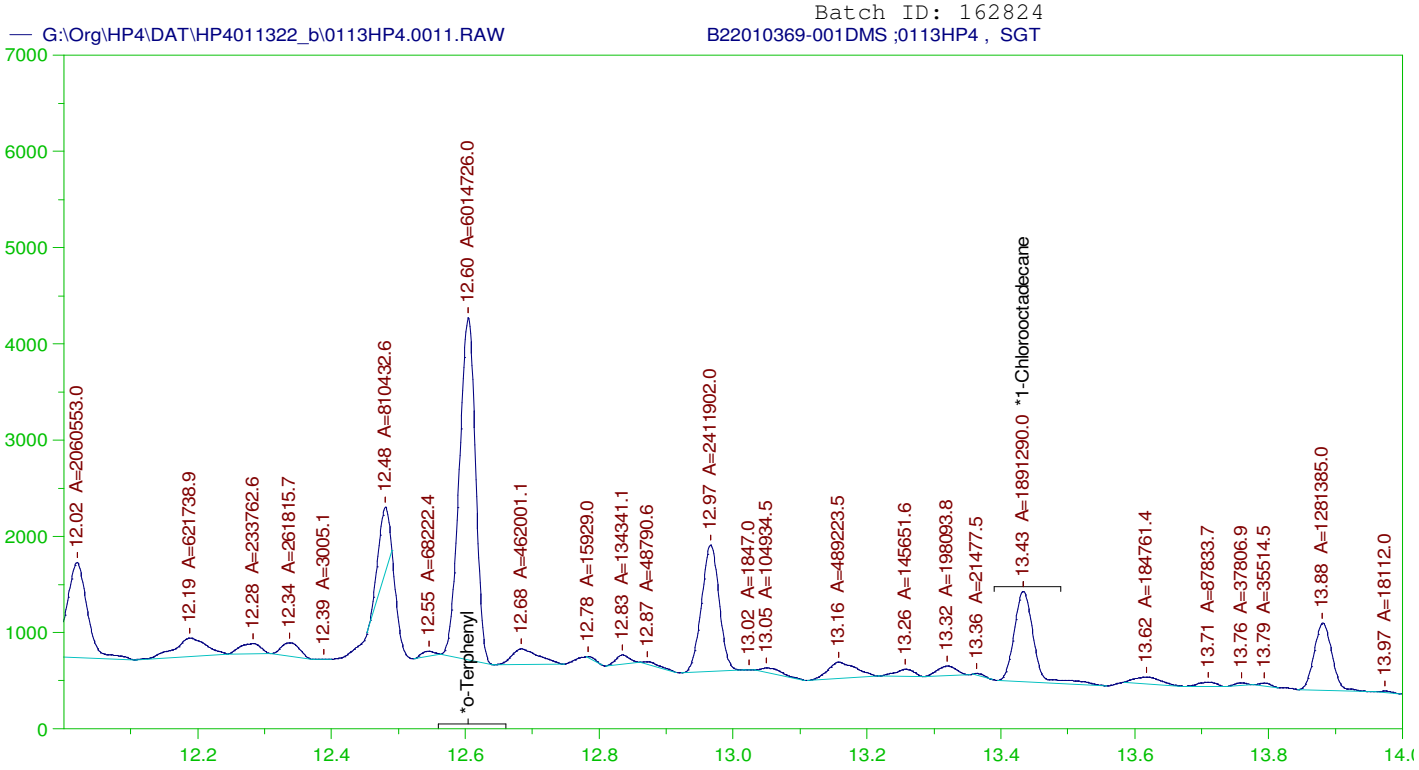
Sample Name: B22010369-001DMS ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0011.RAW
Date & Time Acquired: 1/13/2022 2:47:17 PM
Method File: G:\Org\HP4\methods\D3_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.604	.194	.274	140.89	-
*1-Chlorooctadecane	13.433	.194	.187	96.15	-

DRO Area:3.547206E+08 DRO Amount: 11.72457
TEH Area:3.773421E+08 TEH Amount: 12.47227

Batch ID: 162824



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

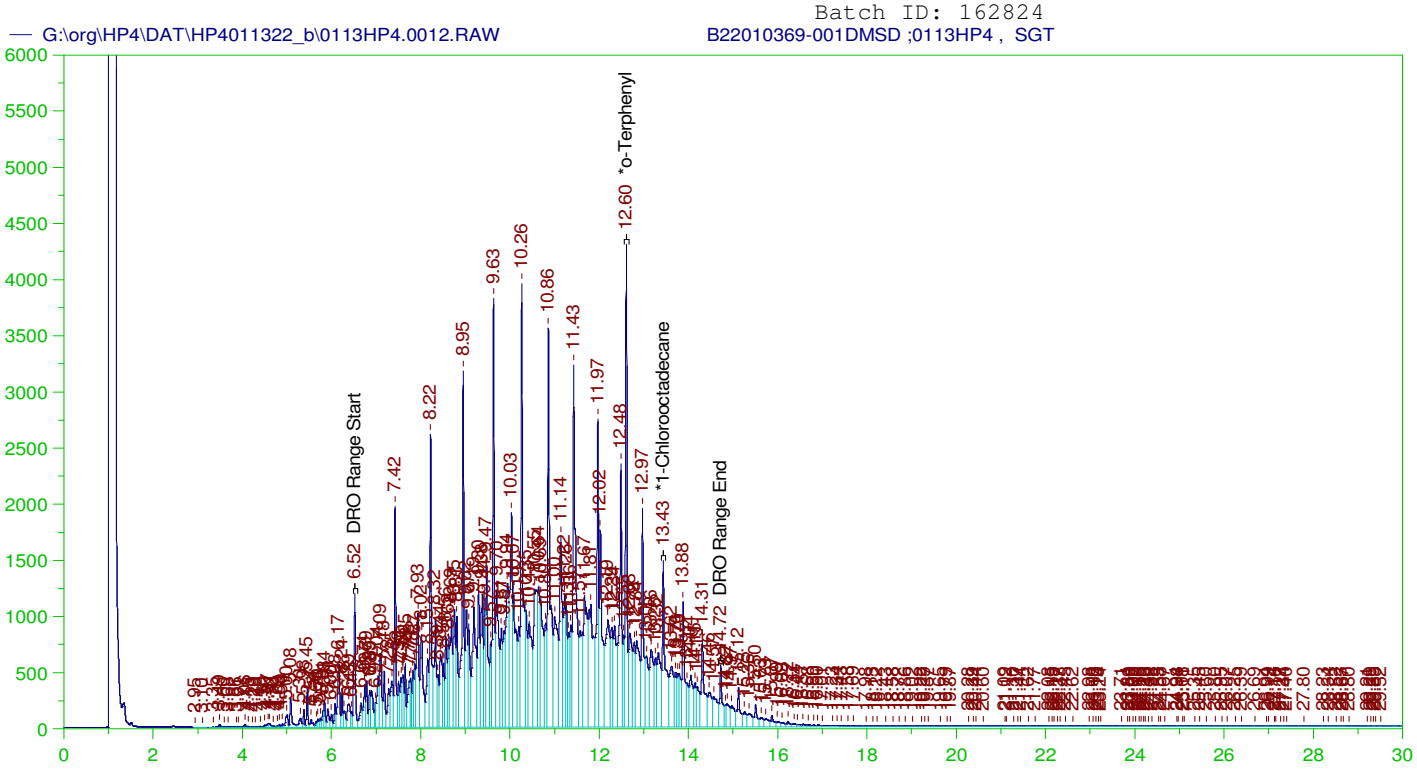
Sample Name: B22010369-001DMS ;0113HP4 , SGT
Raw File: G:\Org\HP4\DAT\HP4011322_b\0113HP4.0011.RAW
Date & Time Acquired: 1/13/2022 2:47:17 PM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.604	.194	.175	90.26	-
*1-Chlorooctadecane	13.433	.194	.055	28.38	-

DRO Area:1.414083E+08 DRO Amount: 4.673964
TEH Area:1.517436E+08 TEH Amount: 5.015576

Batch ID: 162824



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

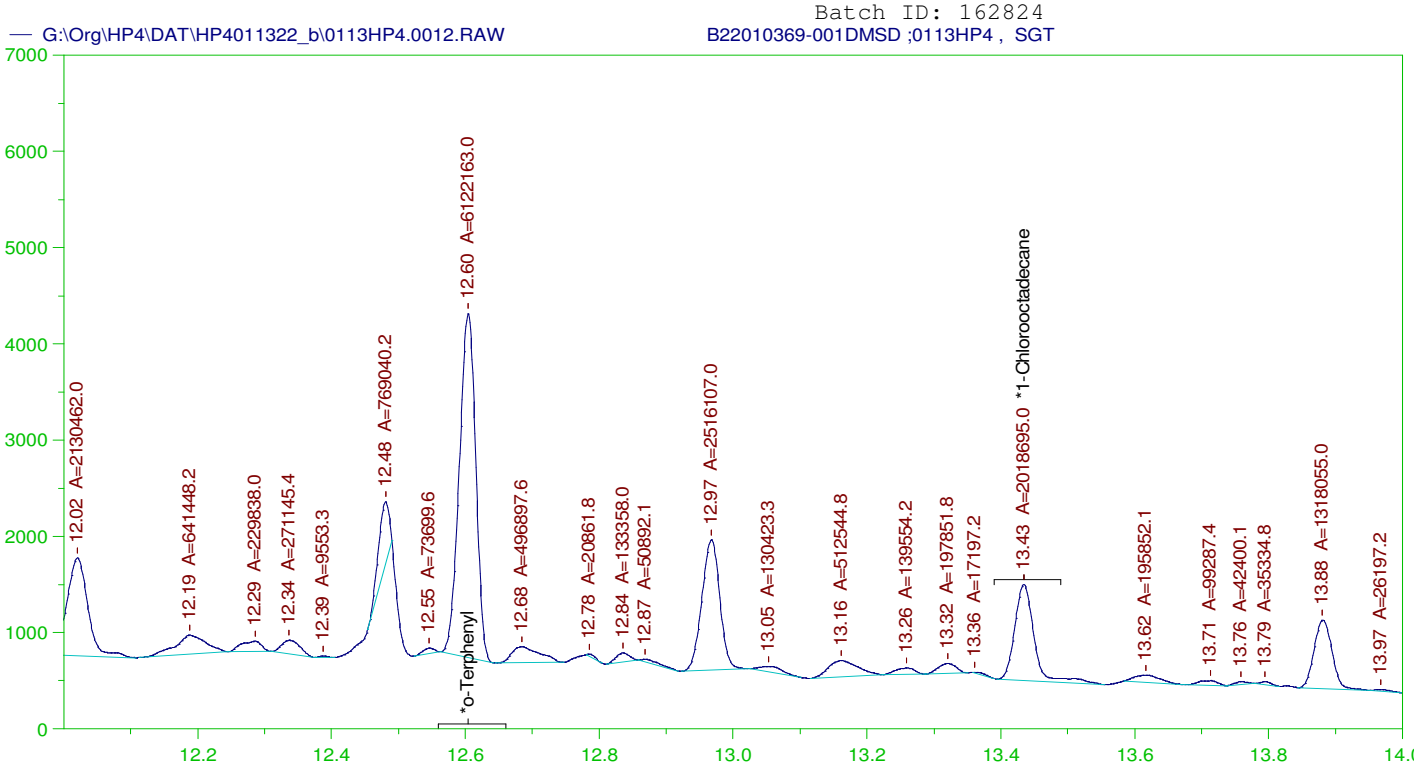
Sample Name: B22010369-001DMSD ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0012.RAW
Date & Time Acquired: 1/13/2022 3:32:00 PM
Method File: G:\Org\HP4\methods\D3_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.604	.189	.274	145.46	-
*1-Chlorooctadecane	13.434	.189	.186	98.62	-

DRO Area:3.630778E+08 DRO Amount: 11.66115
TEH Area:3.853628E+08 TEH Amount: 12.37689

Batch ID: 162824



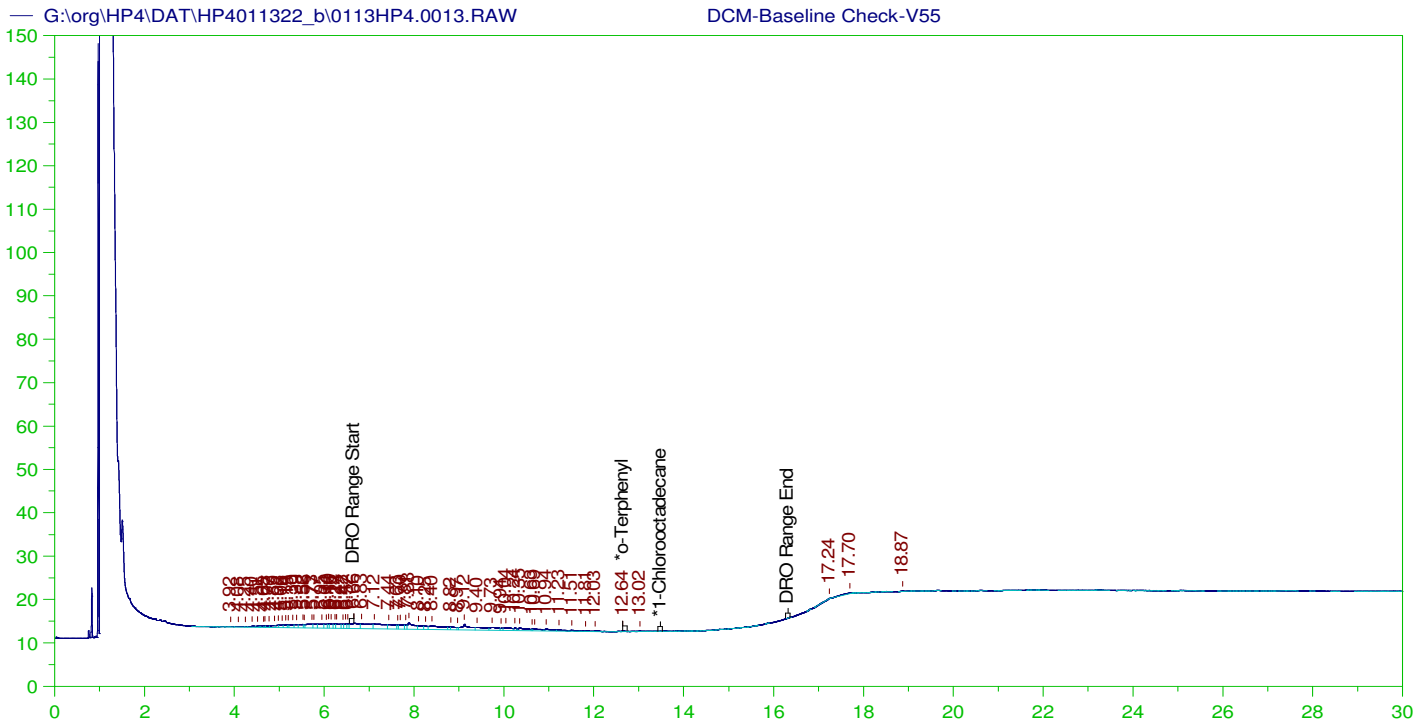
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010369-001DMSD ;0113HP4 , SGT
Raw File: G:\Org\HP4\DAT\HP4011322_b\0113HP4.0012.RAW
Date & Time Acquired: 1/13/2022 3:32:00 PM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.604	.189	.173	91.87	-
*1-Chlorooctadecane	13.434	.189	.057	30.29	-

DRO Area:1.432797E+08 DRO Amount: 4.601785
TEH Area:1.532738E+08 TEH Amount: 4.922771



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V55
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0013.RAW
Date & Time Acquired: 1/13/2022 4:16:40 PM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

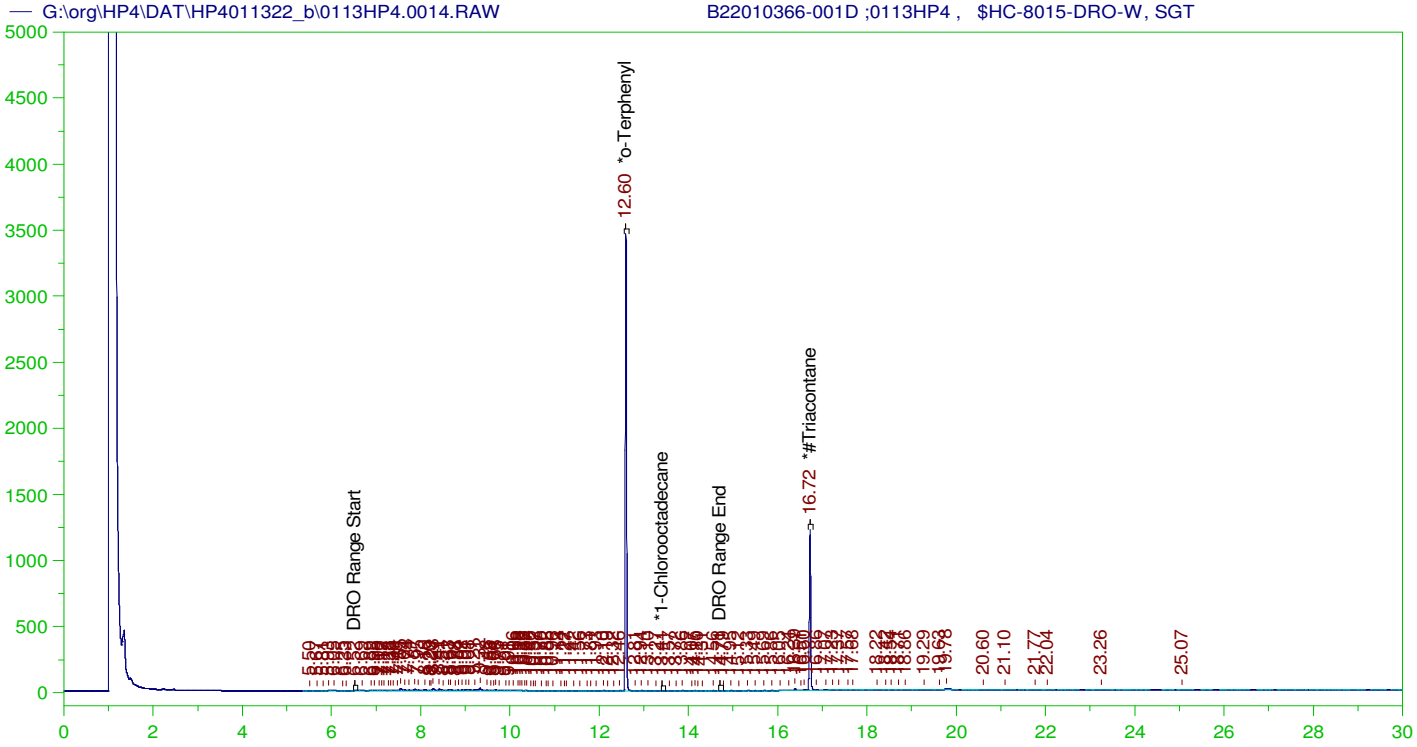
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.644	200.	.025	.01	-
*1-Chlorooctadecane	29.943	200.	.	.	-

DRO Area:193047.1 DRO Amount: 6.572201
TEH Area:294582.6 TEH Amount: 10.02893

ERH2323 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0014.RAW B22010366-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010366-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0014.RAW
Date & Time Acquired: 1/13/2022 5:21:49 PM
Method File: G:\Org\HP4\methods\DR_8015-C24Ta-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

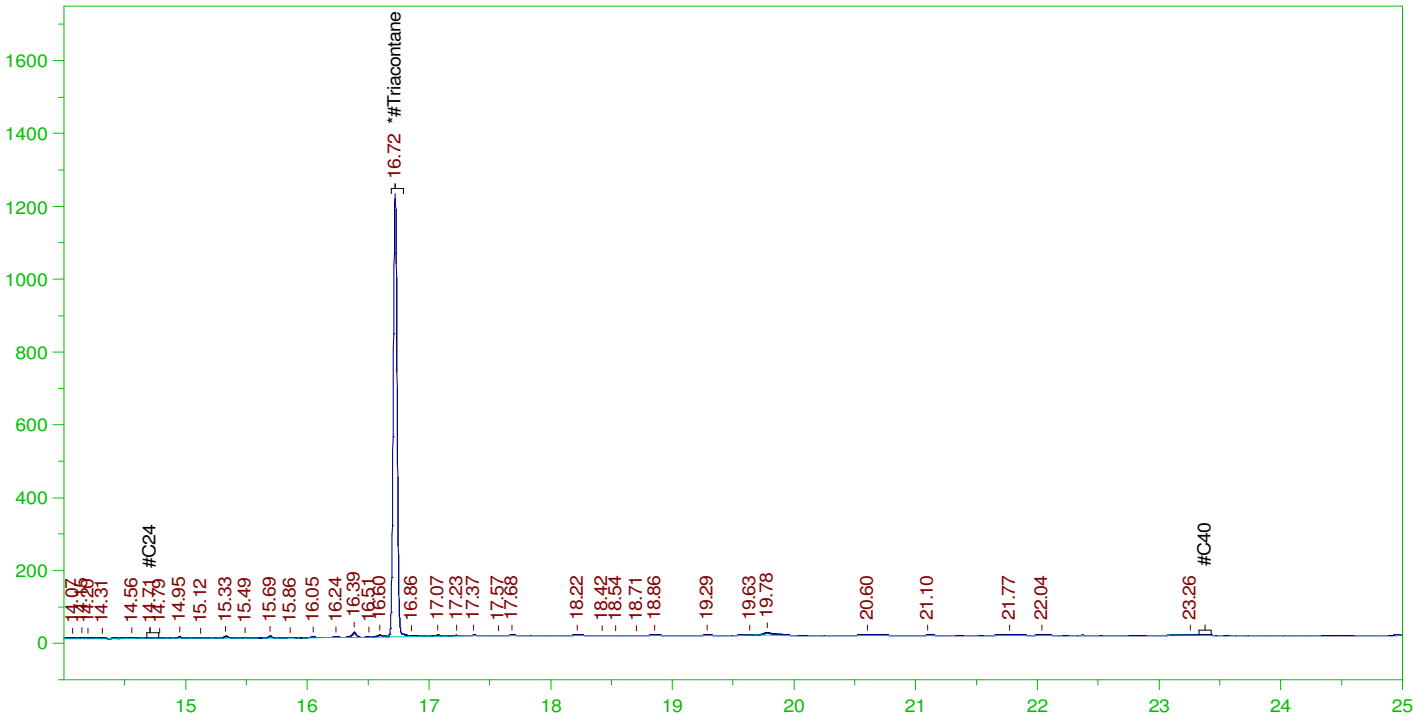
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.596	.198	.183	92.58	-
*1-Chlorooctadecane	13.406	.198	.	.08	-
*#Triacontane	16.723	.198	.105	52.88	-

DRO Area:1239071 DRO Amount: 4.176596E-02
TEH Area:1515604 TEH Amount: 5.108717E-02

ERH2323 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0014.RAW B22010366-001D ;0113HP4 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010366-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0014.RAW
Date & Time Acquired: 1/13/2022 5:21:49 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

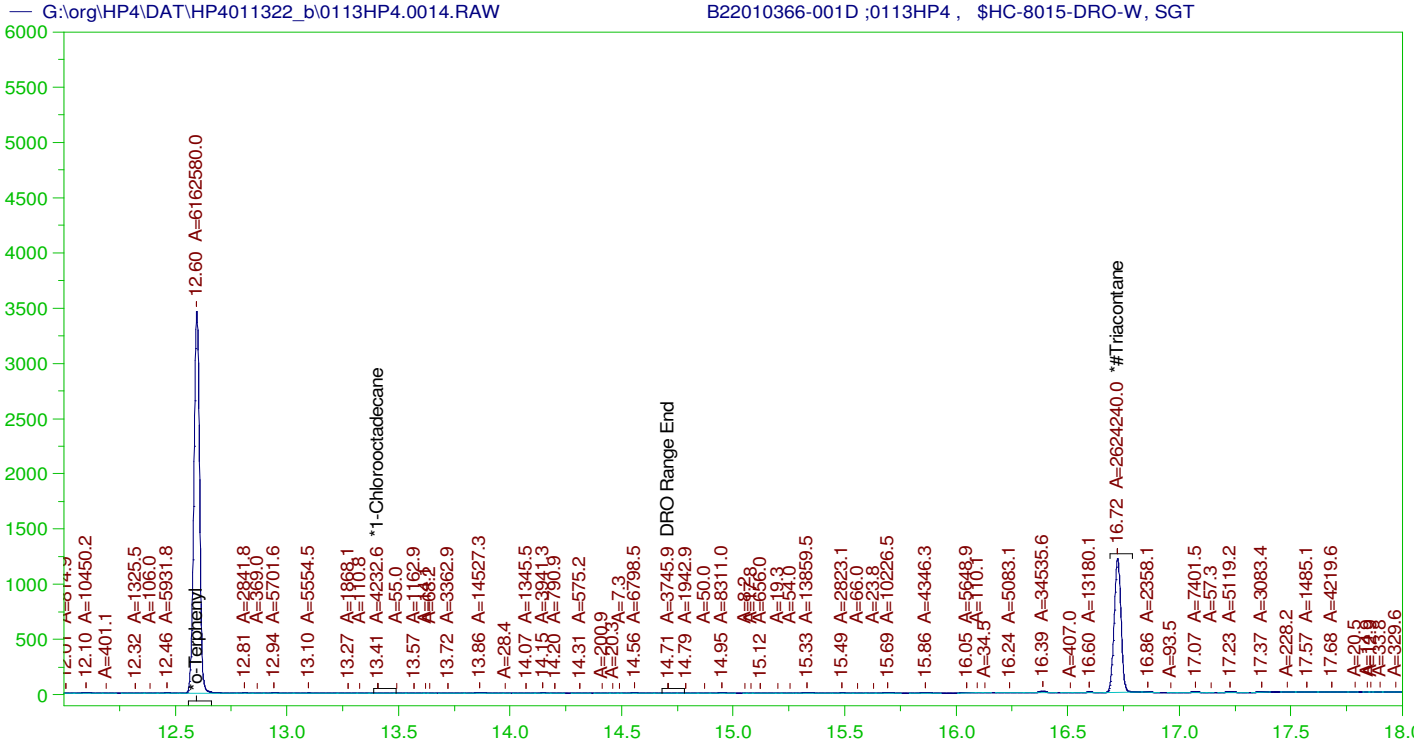
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.723	.495	.105	21.15	-

RRO Area:232053.5 RRO AMOUNT: 9.366493E-03

ERH2323 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0014.RAW B22010366-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010366-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0014.RAW
Date & Time Acquired: 1/13/2022 5:21:49 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

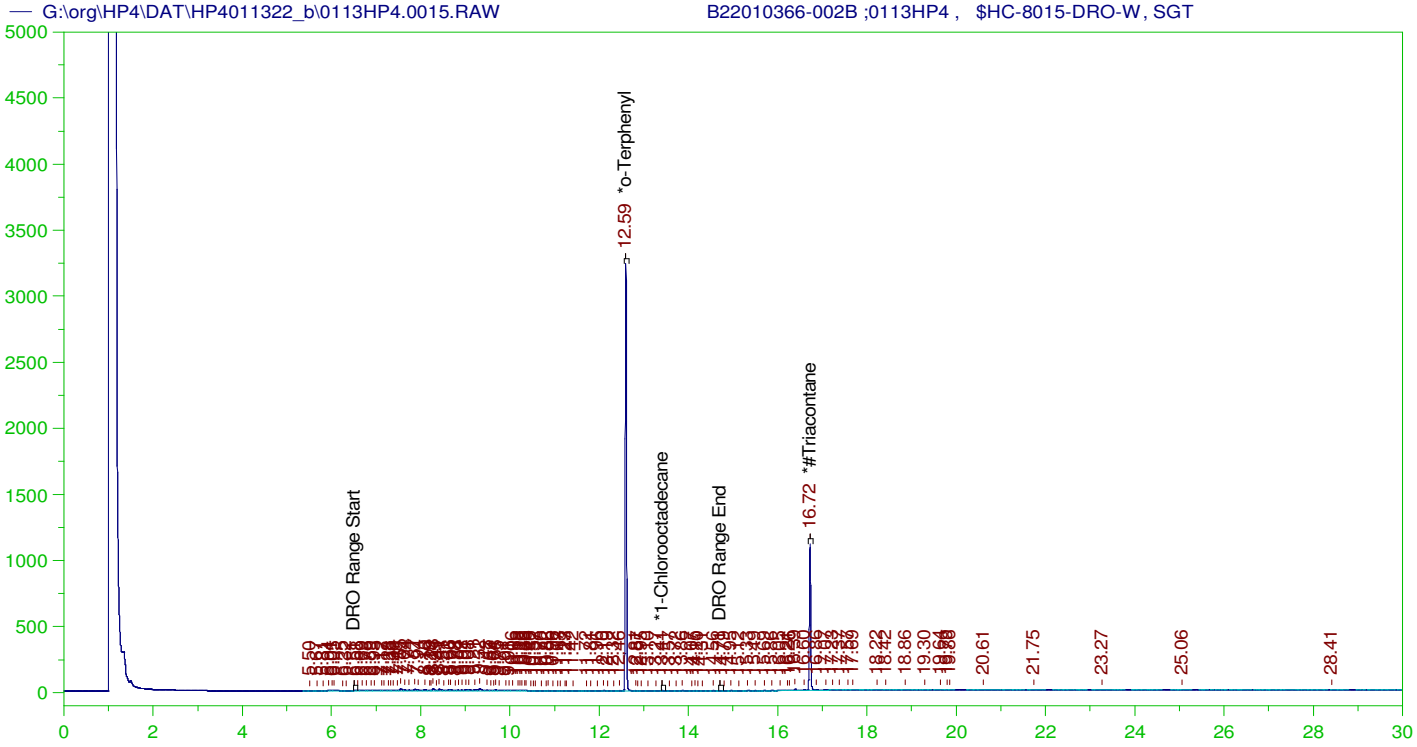
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.596	.198	.183	92.48	-
*1-Chlorooctadecane	13.406	.198	. .06		-
*#Triacontane	16.723	.198	.104	52.54	-

DRO Area:1267042 DRO Amount: 4.270879E-02
TEH Area:1576306 TEH Amount: 5.313331E-02

ERH2324 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0015.RAW B22010366-002B ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010366-002B ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0015.RAW
Date & Time Acquired: 1/13/2022 6:07:06 PM
Method File: G:\Org\HP4\methods\DR_8015-C24Ta-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

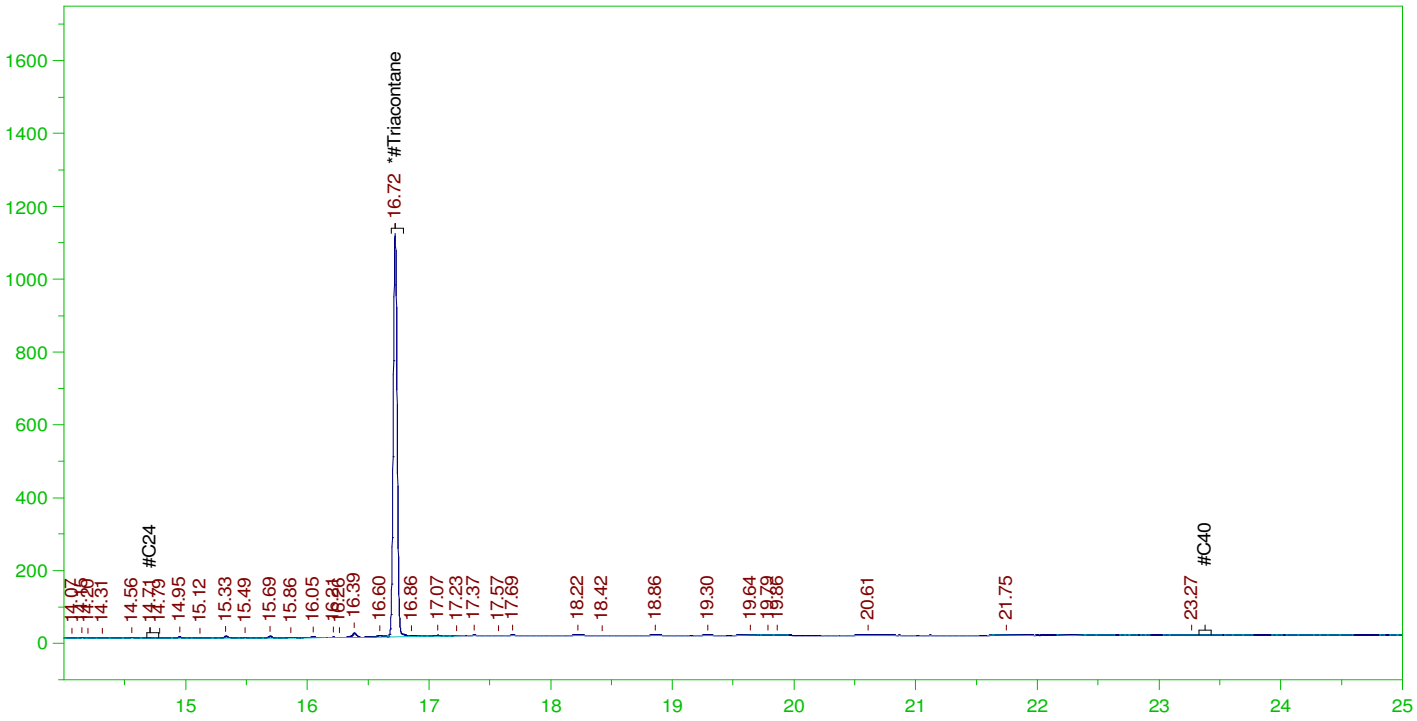
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.595	.196	.171	87.15	-
*1-Chlorooctadecane	13.408	.196	.	.09	-
*#Triacontane	16.722	.196	.095	48.51	-

DRO Area:1160213 DRO Amount: 3.872443E-02
TEH Area:1358625 TEH Amount: 4.534682E-02

ERH2324 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0015.RAW B22010366-002B ;0113HP4 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010366-002B ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0015.RAW
Date & Time Acquired: 1/13/2022 6:07:06 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

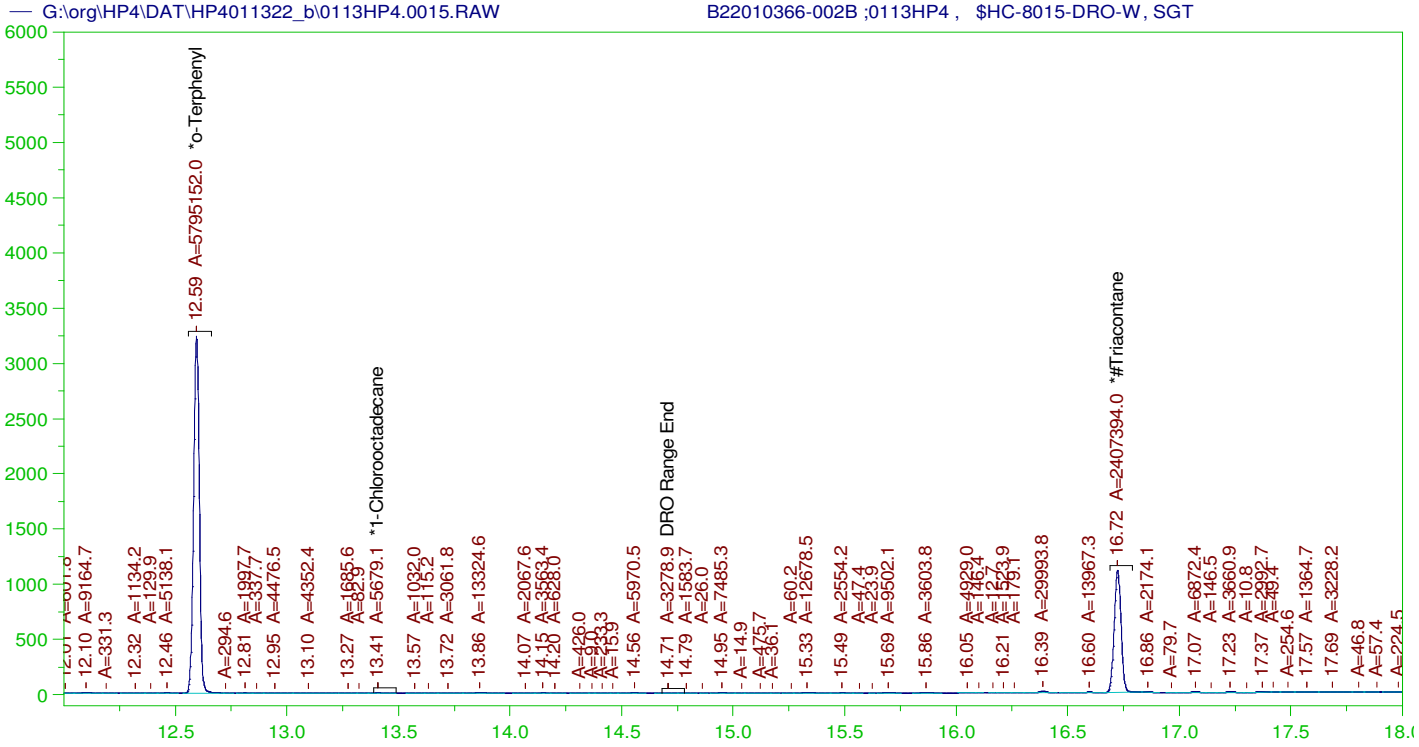
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.722	.49	.095	19.4	-

RRO Area:157208.9 RRO AMOUNT: 6.28329E-03

ERH2324 (RHMW01R) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0015.RAW B22010366-002B ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010366-002B ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0015.RAW
Date & Time Acquired: 1/13/2022 6:07:06 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

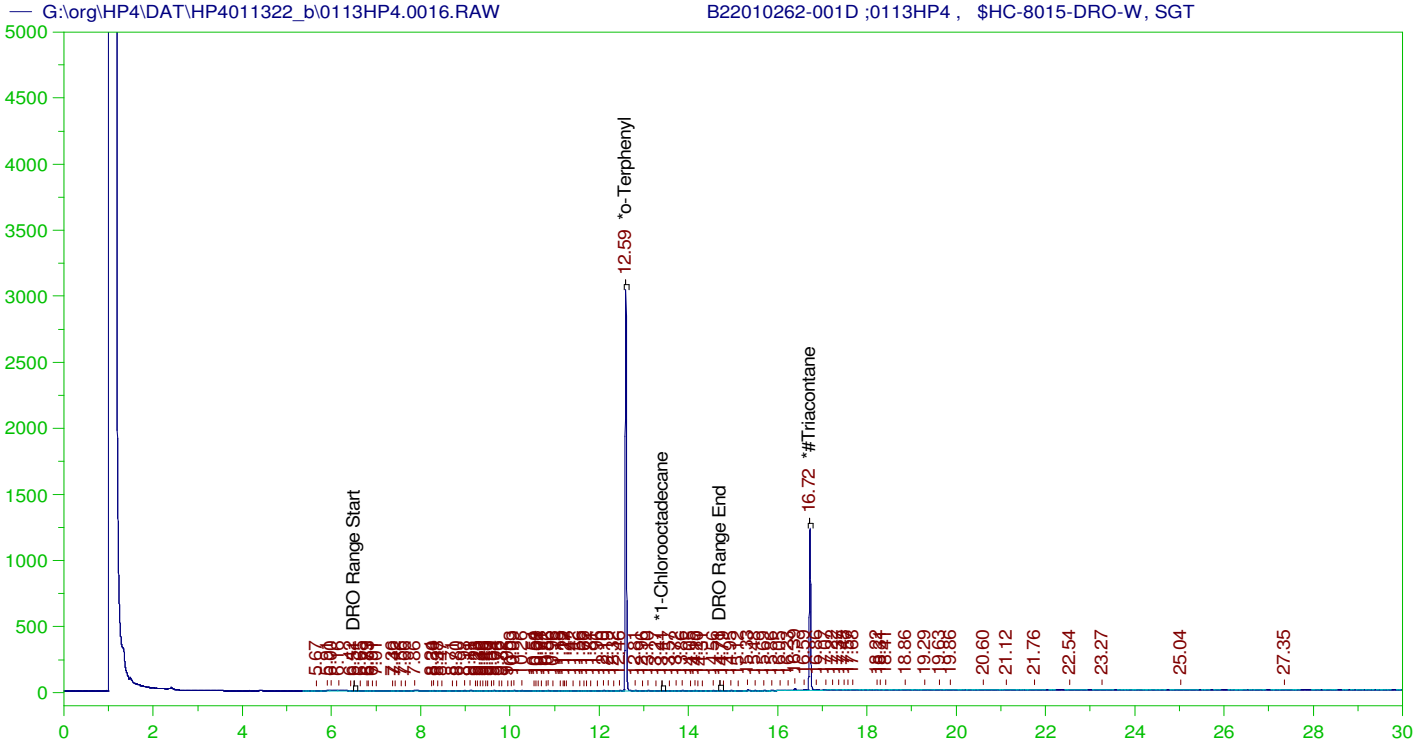
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.595	.196	.171	86.96	-
*1-Chlorooctadecane	13.408	.196	. .09		-
*#Triacontane	16.722	.196	.095	48.2	-

DRO Area:1209246 DRO Amount: 4.036102E-02
TEH Area:1441664 TEH Amount: 4.811843E-02

ERH2328 (RHMW03) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0016.RAW B22010262-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010262-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0016.RAW
Date & Time Acquired: 1/13/2022 6:52:28 PM
Method File: G:\Org\HP4\methods\DR_8015-C24Ta-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

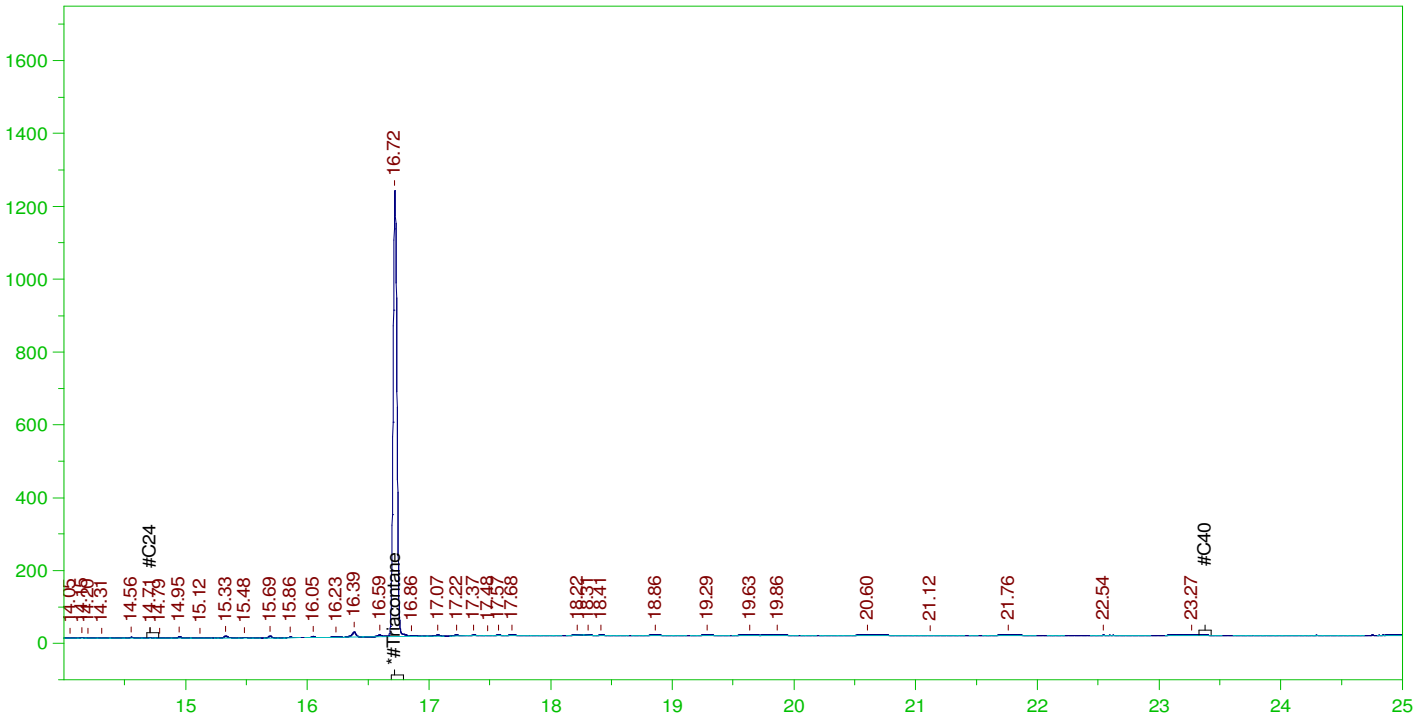
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.594	.194	.158	81.27	-
*1-Chlorooctadecane	13.406	.194	.	.05	-
*#Triacontane	16.721	.194	.103	53.05	-

DRO Area:302513.5 DRO Amount: 9.998967E-03
TEH Area:607034.4 TEH Amount: 2.006428E-02

ERH2328 (RHMW03) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0016.RAW B22010262-001D ;0113HP4 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010262-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0016.RAW
Date & Time Acquired: 1/13/2022 6:52:28 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

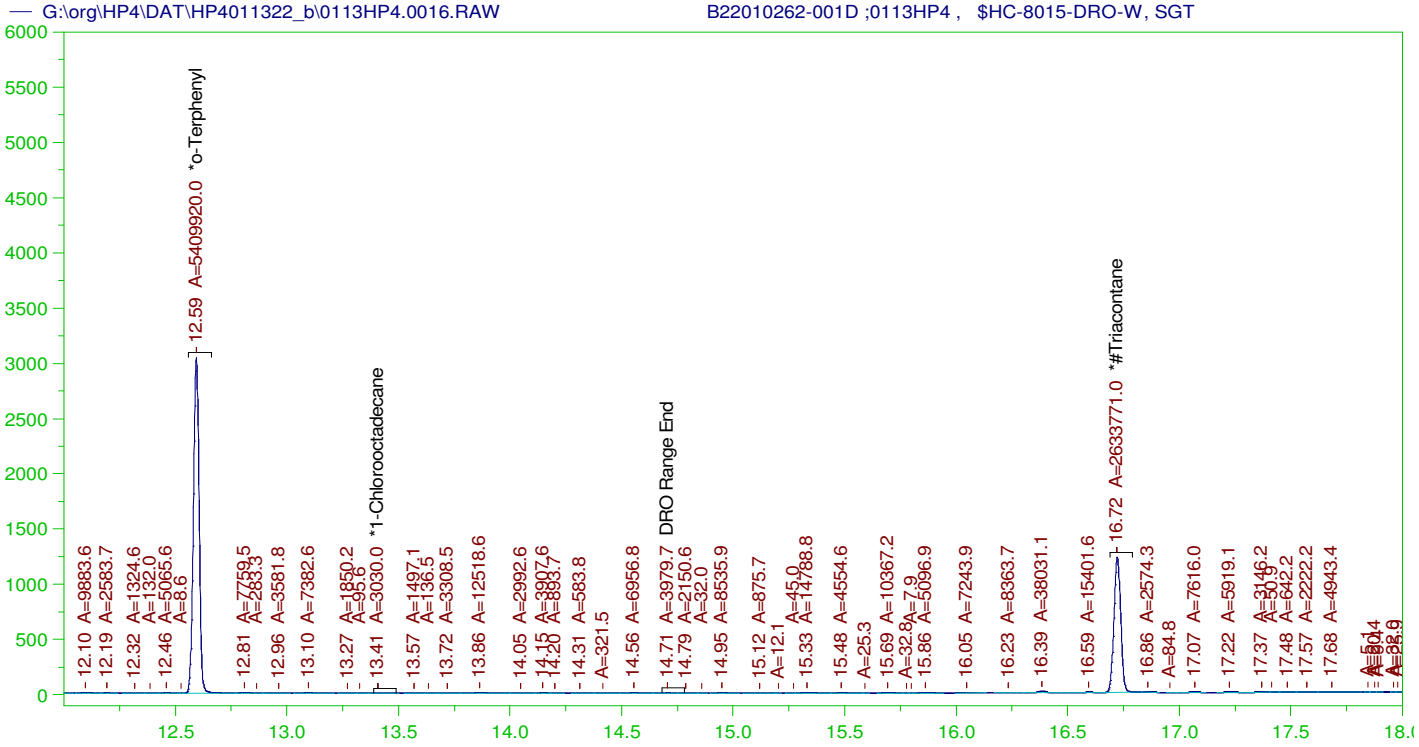
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.721	.485	.103	21.22	-

RRO Area:212341.3 RRO AMOUNT: 8.404415E-03

ERH2328 (RHMW03) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0016.RAW B22010262-001D ;0113HP4 , $HC-8015-DRO-W, SGT



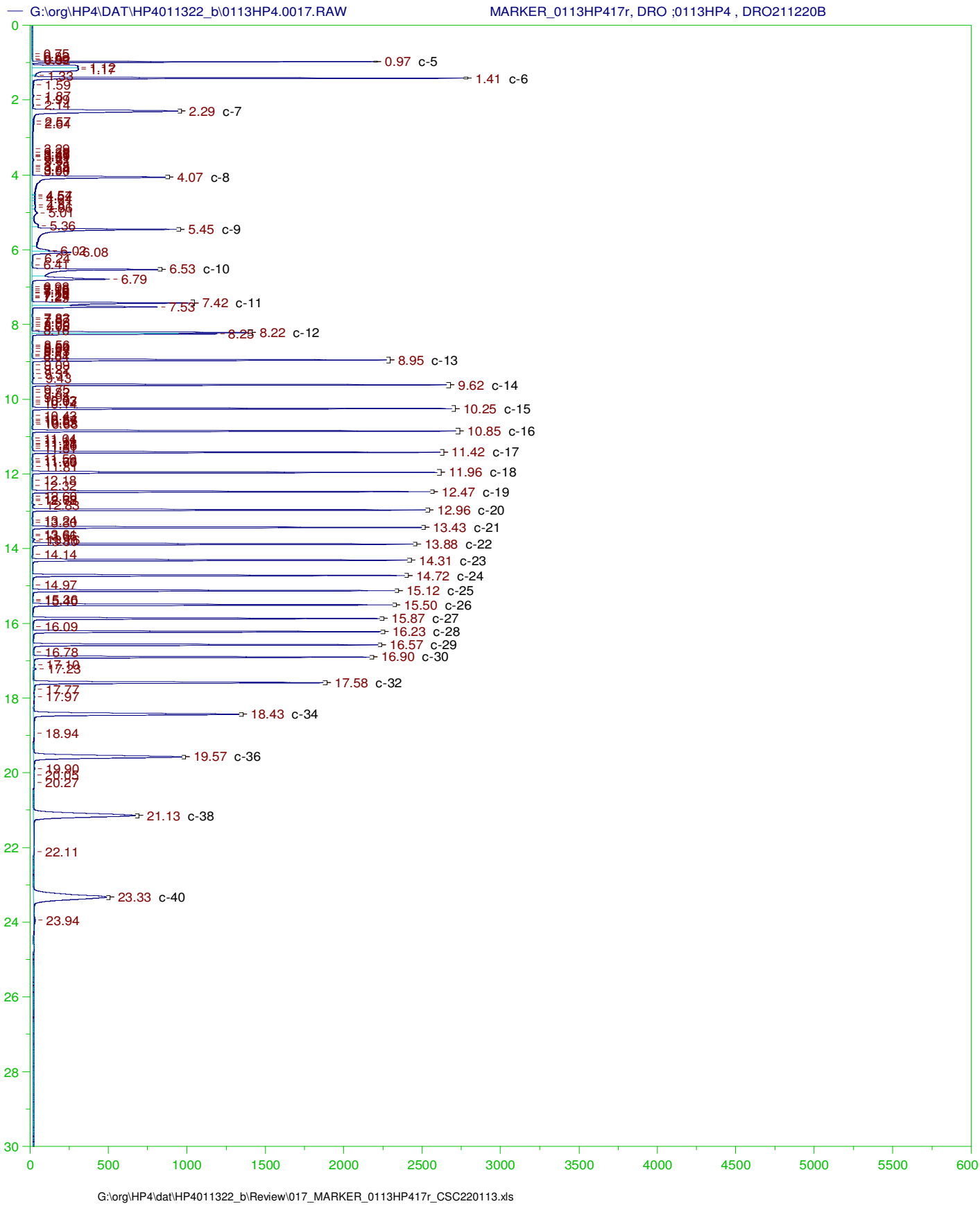
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

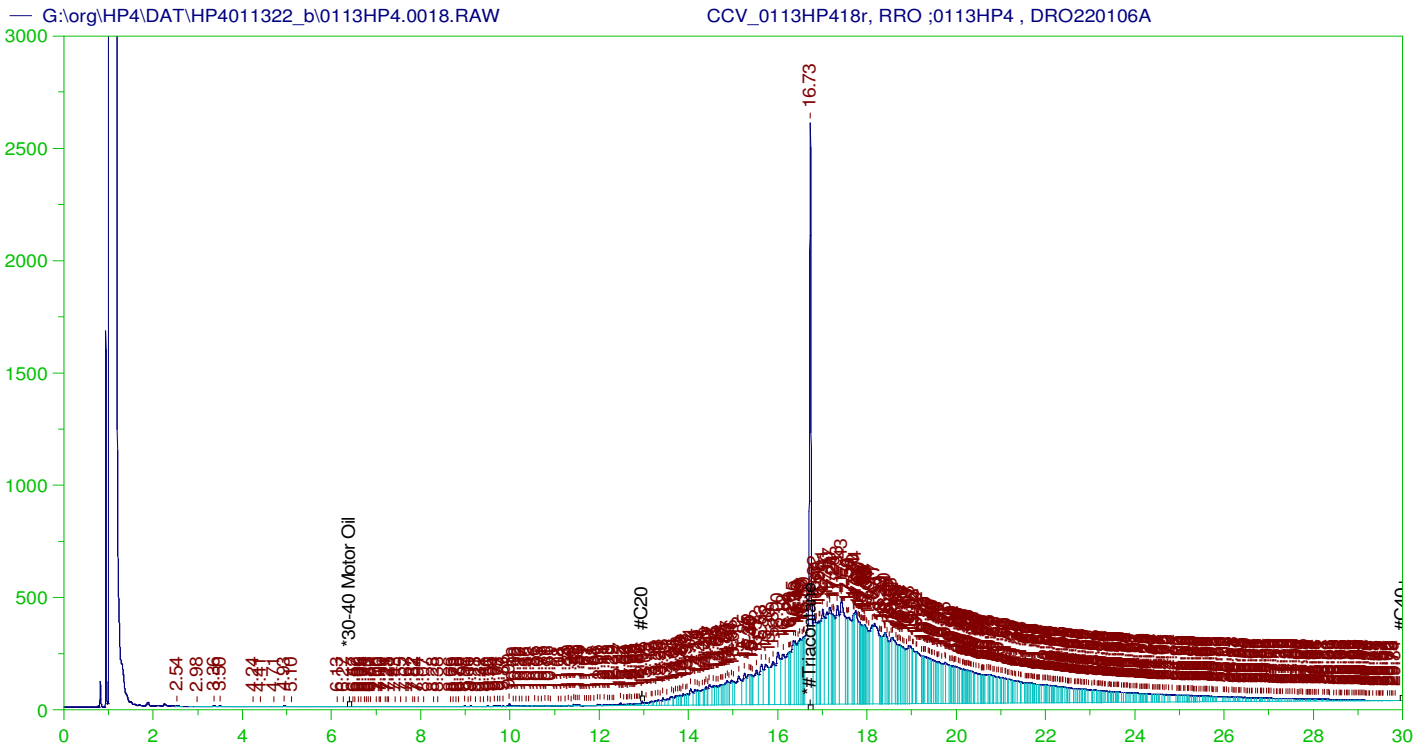
Sample Name: B22010262-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0016.RAW
Date & Time Acquired: 1/13/2022 6:52:28 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.594	.194	.158	81.18	-
*1-Chlorooctadecane	13.406	.194	. .05		-
*#Triacontane	16.721	.194	.102	52.73	-

DRO Area:314331 DRO Amount: 1.038957E-02
TEH Area:665071.3 TEH Amount: 2.198258E-02


G:\org\HP4\DAT\HP4011322_b\0113HP4.0017.RAW
MARKER_0113HP417r, DRO ;0113HP4 , DRO211220B
0.97 c-5
1.41 c-6
2.29 c-7
4.07 c-8
5.45 c-9
6.53 c-10
7.42 c-11
8.22 c-12
8.95 c-13
9.62 c-14
10.25 c-15
10.85 c-16
11.42 c-17
11.96 c-18
12.47 c-19
12.96 c-20
13.43 c-21
13.88 c-22
14.31 c-23
14.72 c-24
15.12 c-25
15.50 c-26
15.87 c-27
16.23 c-28
16.57 c-29
16.90 c-30
17.58 c-32
18.43 c-34
19.57 c-36
21.13 c-38
23.33 c-40
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
600
G:\org\HP4\dat\HP4011322_b\Review\017_MARKER_0113HP417r_CSC220113.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0113HP418r, RRO ;0113HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0018.RAW
Date & Time Acquired: 1/13/2022 8:22:48 PM
Method File: G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.73	500.	338.964	67.79	-

~~RRO~~ TEH (Oil Range) Area:1.088953E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4439.348

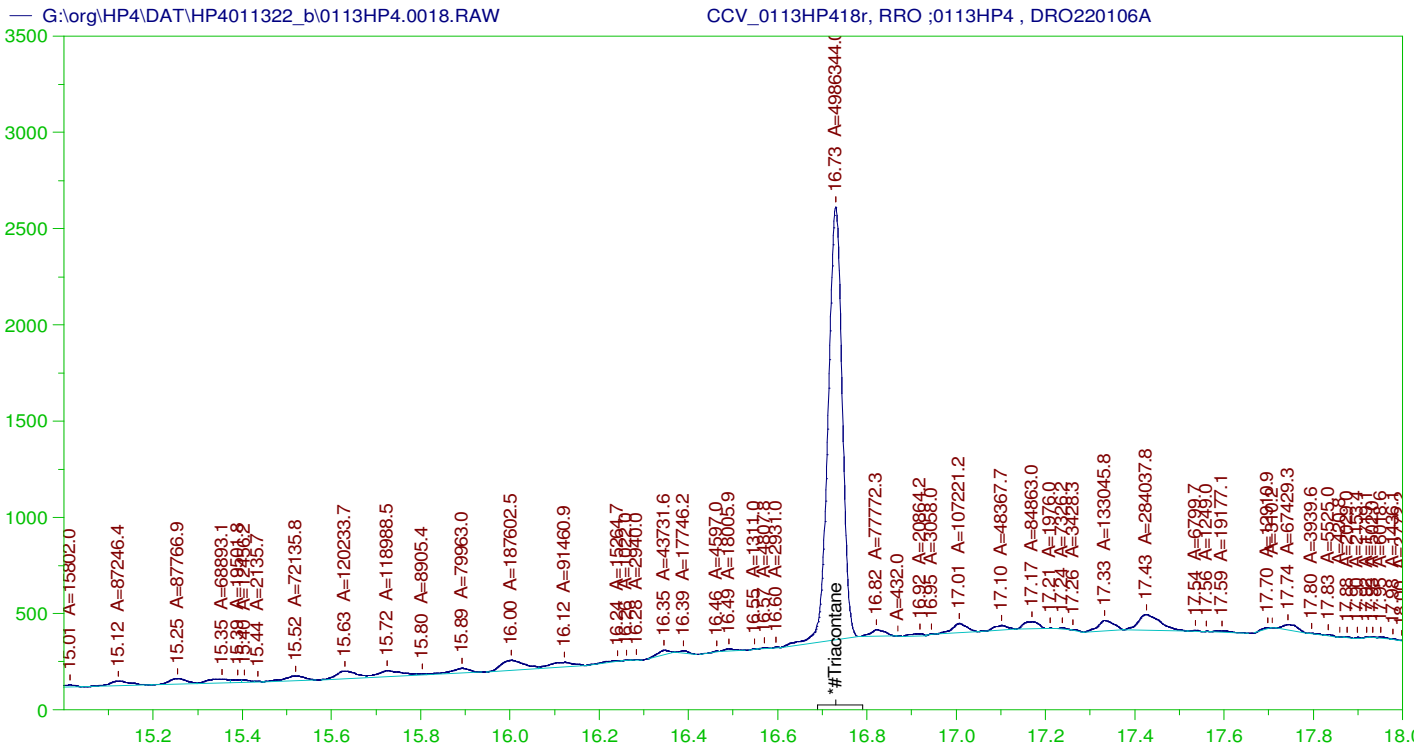
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011322_b\0113HP4.0018.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.73	200.	338.964	169.48	75-125

AMN 02/01/2022

G:\org\HP4\dat\HP4011322_b\Review\018_CCV_0113HP418r_DC_ORO-T-AD-L%.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0113HP418r, RRO ;0113HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0018.RAW
Date & Time Acquired: 1/13/2022 8:22:48 PM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

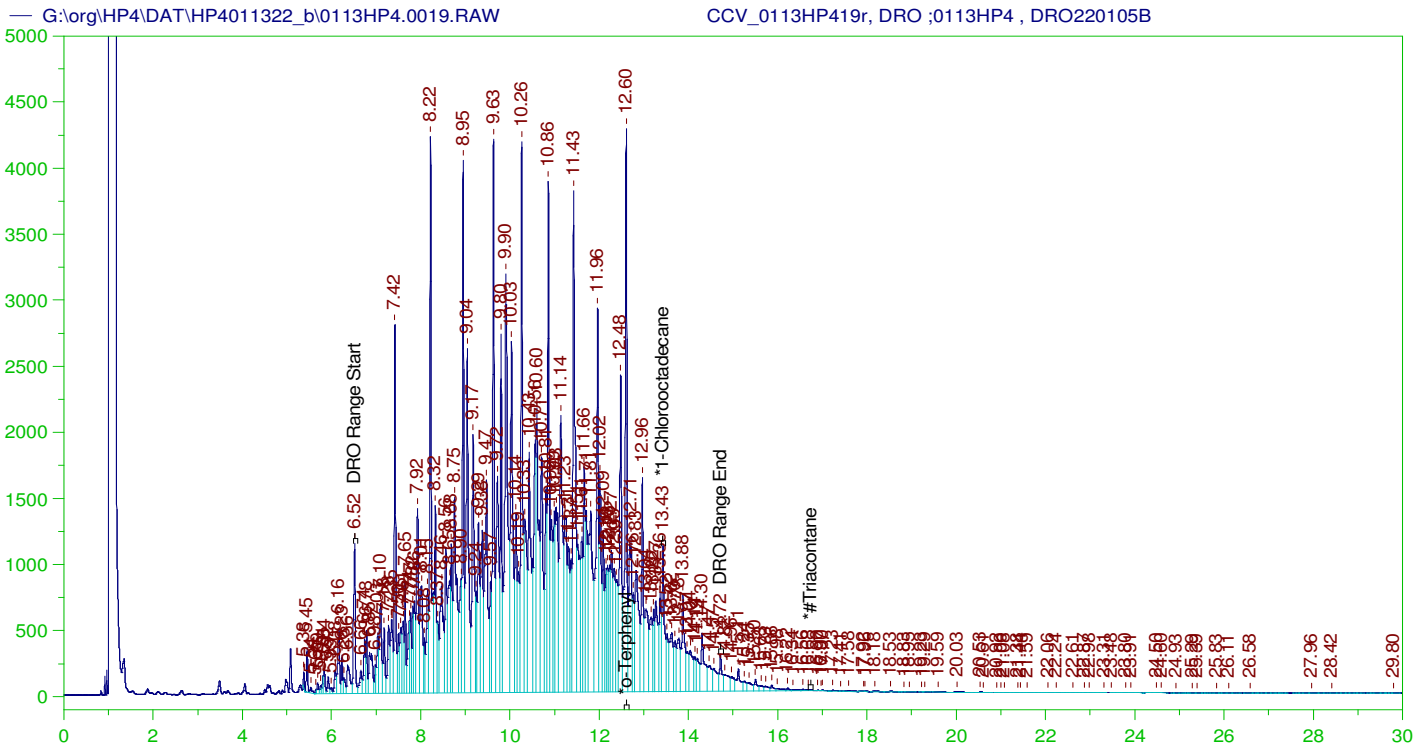
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.73	500.	199.663	39.93	-

RRO Area:3306284 RRO AMOUNT: 134.7877

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011322_b\0113HP4.0018.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.73	200.	199.663	99.83	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0113HP419r, DRO ;0113HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0019.RAW
Date & Time Acquired: 1/13/2022 9:07:51 PM
Method File: G:\Org\HP4\methods\DR_8015-C24Ta-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.602	200.	345.225	172.61	-
*1-Chlorooctadecane	13.429	200.	112.737	56.37	-
*#Triacontane	29.802	200.	.	.	-

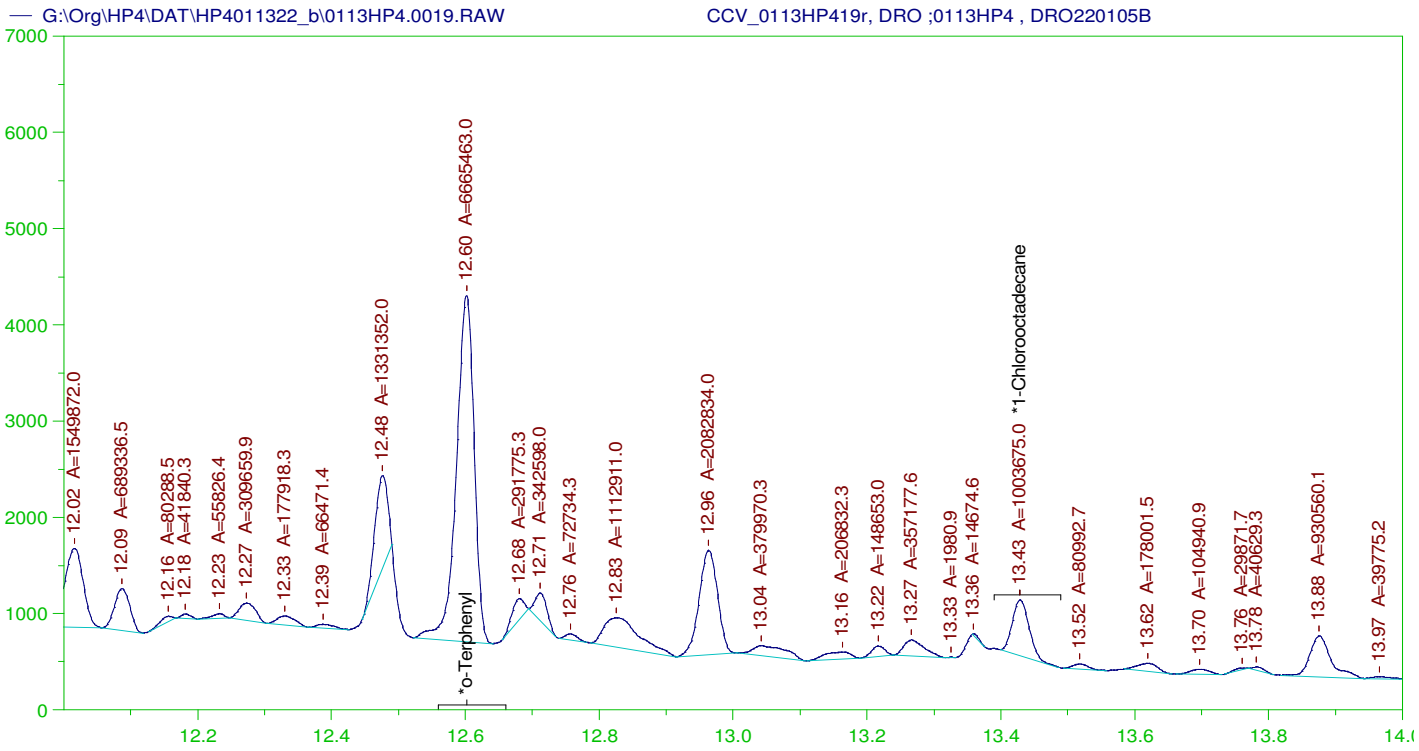
DRO Area:4.217505E+08 DRO Amount: 14358.31
TEH Area:4.335489E+08 TEH Amount: 14759.98

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011322_b\0113HP4.0019.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14759.98	98.4	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.602	200.	345.225	172.61	85-115
*1-Chlorooctadecane	13.429	200.	112.737	56.37	85-115
*#Triacontane	29.802	200.	.	.	85-115

G:\org\HP4\dat\HP4011322_b\Review\019_CCV_0113HP419r_DR_8015-C24Ta-OK-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0113HP419r, DRO ;0113HP4 , DRO220105B
Raw File: G:\Org\HP4\DAT\HP4011322_b\0113HP4.0019.RAW
Date & Time Acquired: 1/13/2022 9:07:51 PM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

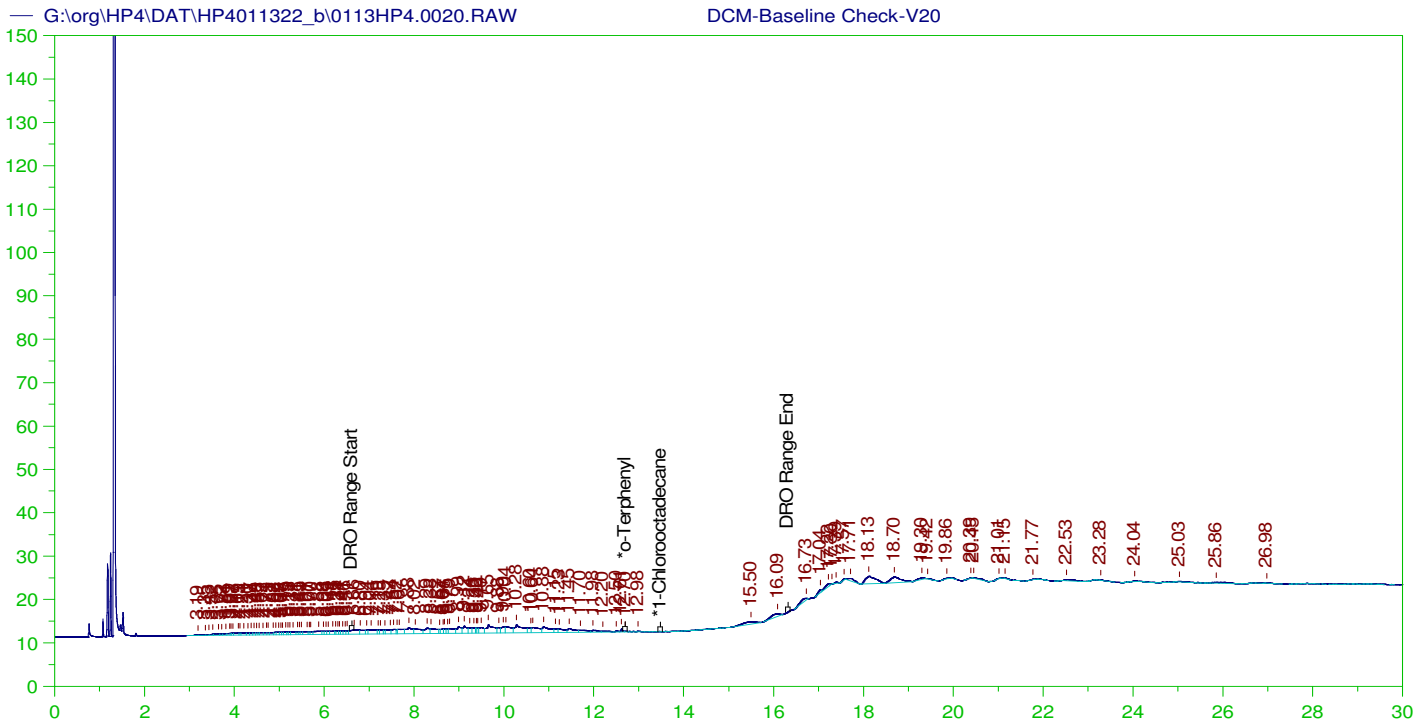
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.602	200.	200.046	100.02	-
*1-Chlorooctadecane	13.429	200.	30.123	15.06	-

DRO Area:1.824136E+08 DRO Amount: 6210.187
TEH Area:1.923259E+08 TEH Amount: 6547.647

CONTINUING CALIBRATION REPORT: G:\Org\HP4\DAT\HP4011322_b\0113HP4.0019.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	6547.65	43.65	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.602	200.	200.046	100.02	85-115
*1-Chlorooctadecane	13.429	200.	30.123	15.06	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V20
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0020.RAW
Date & Time Acquired: 1/13/2022 9:53:01 PM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

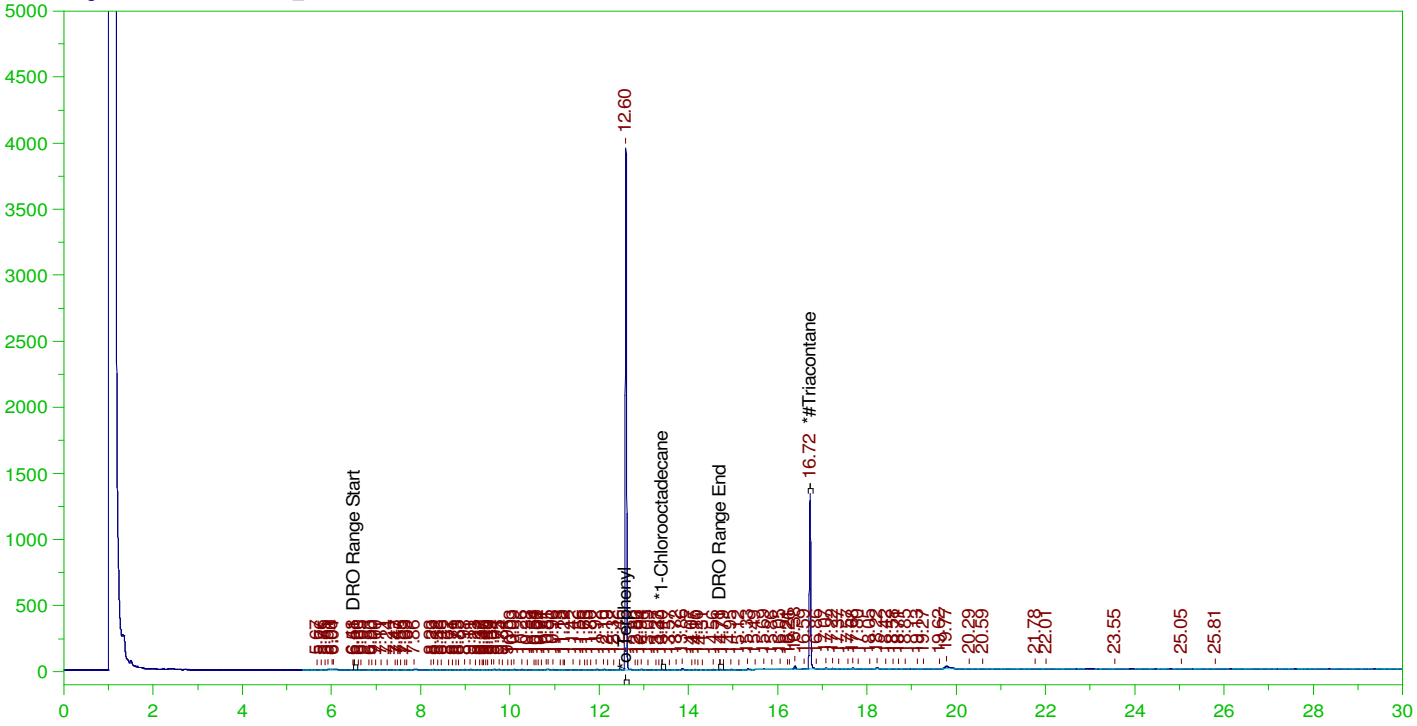
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.7	200.	.017	.01	-
*1-Chlorooctadecane	29.76	200.	.	.	-

DRO Area:357334 DRO Amount: 12.16528
TEH Area:578013.1 TEH Amount: 19.67819

ERH2352 (RHMW13 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0021.RAW B22010411-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010411-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0021.RAW
Date & Time Acquired: 1/13/2022 10:38:00 PM
Method File: G:\Org\HP4\methods\DR_8015-C24Ta-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 970 Dilution: 1 S.A.: 1

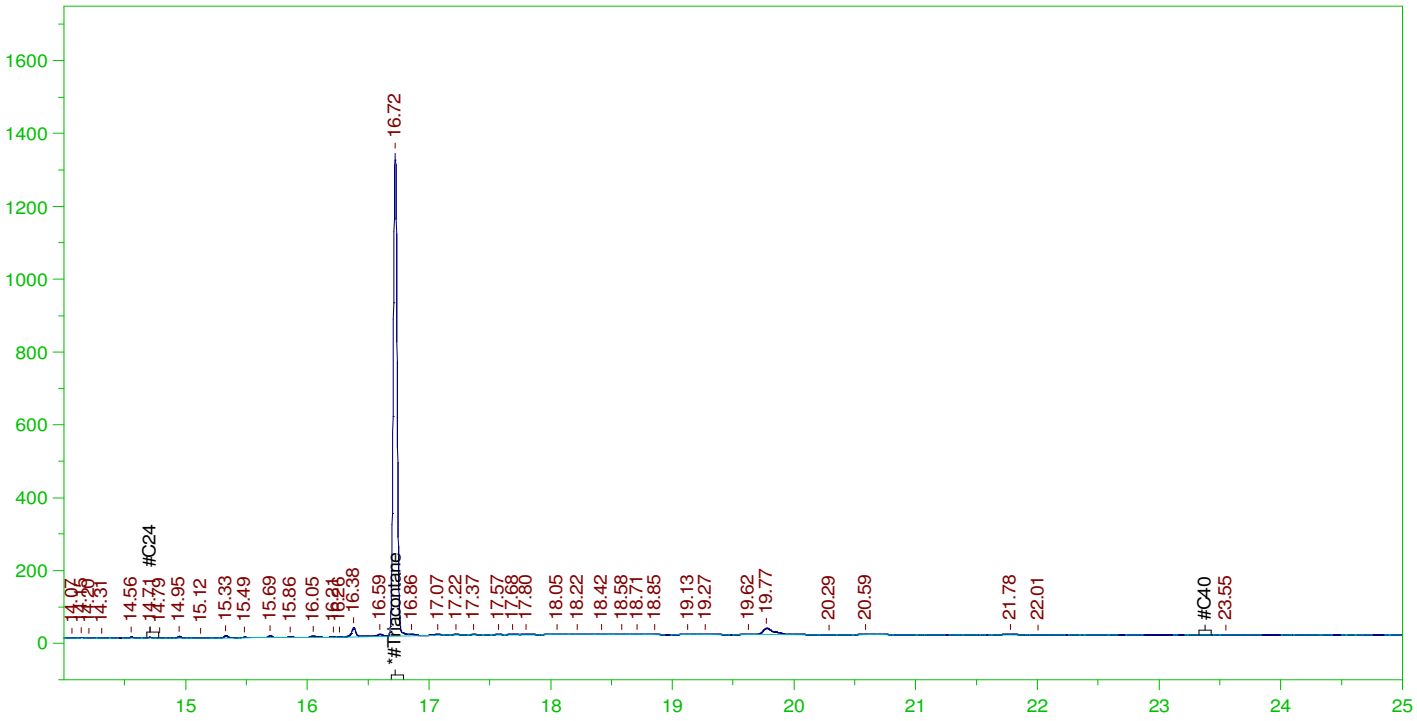
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.597	.206	.217	105.24	-
*1-Chlorooctadecane	13.404	.206	.	.09	-
*#Triacontane	16.723	.206	.12	58.08	-

DRO Area:380095.8 DRO Amount: 0.0133404
TEH Area:781621.7 TEH Amount: 2.743295E-02

ERH2352 (RHMW13 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0021.RAW B22010411-001D ;0113HP4 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010411-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0021.RAW
Date & Time Acquired: 1/13/2022 10:38:00 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 970 Dilution: 1 S.A.: 1

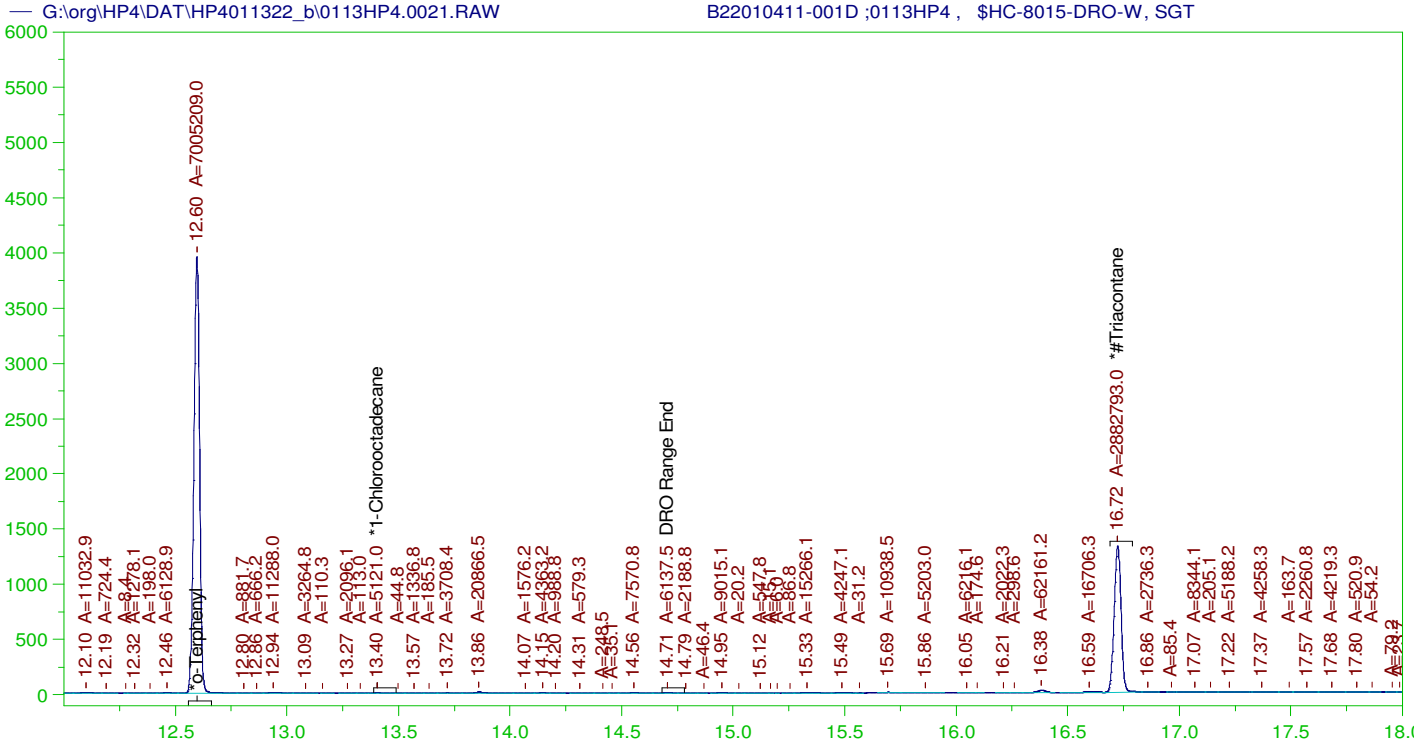
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.723	.515	.12	23.23	-

RRO Area:344882.1 RRO AMOUNT: 1.449469E-02

ERH2352 (RHMW13 zone 5) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0021.RAW B22010411-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010411-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0021.RAW
Date & Time Acquired: 1/13/2022 10:38:00 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 970 Dilution: 1 S.A.: 1

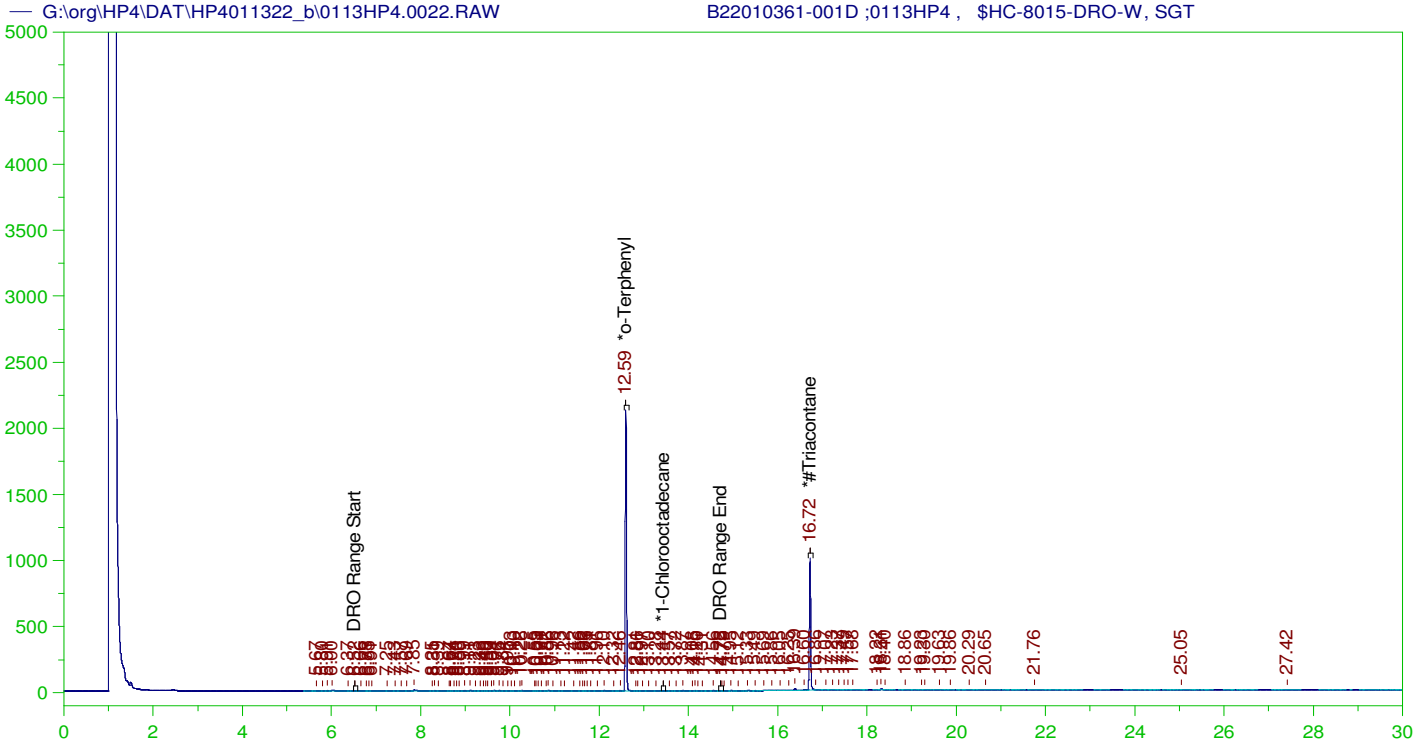
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.597	.206	.217	105.12	-
*1-Chlorooctadecane	13.404	.206	. .08		-
*#Triacontane	16.723	.206	.119	57.72	-

DRO Area:263772.4 DRO Amount: 9.257746E-03
TEH Area:648730.1 TEH Amount: 2.276879E-02

ERH2360 (RHMW08) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0022.RAW B22010361-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010361-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0022.RAW
Date & Time Acquired: 1/13/2022 11:23:10 PM
Method File: G:\Org\HP4\methods\DR_8015-C24Ta-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

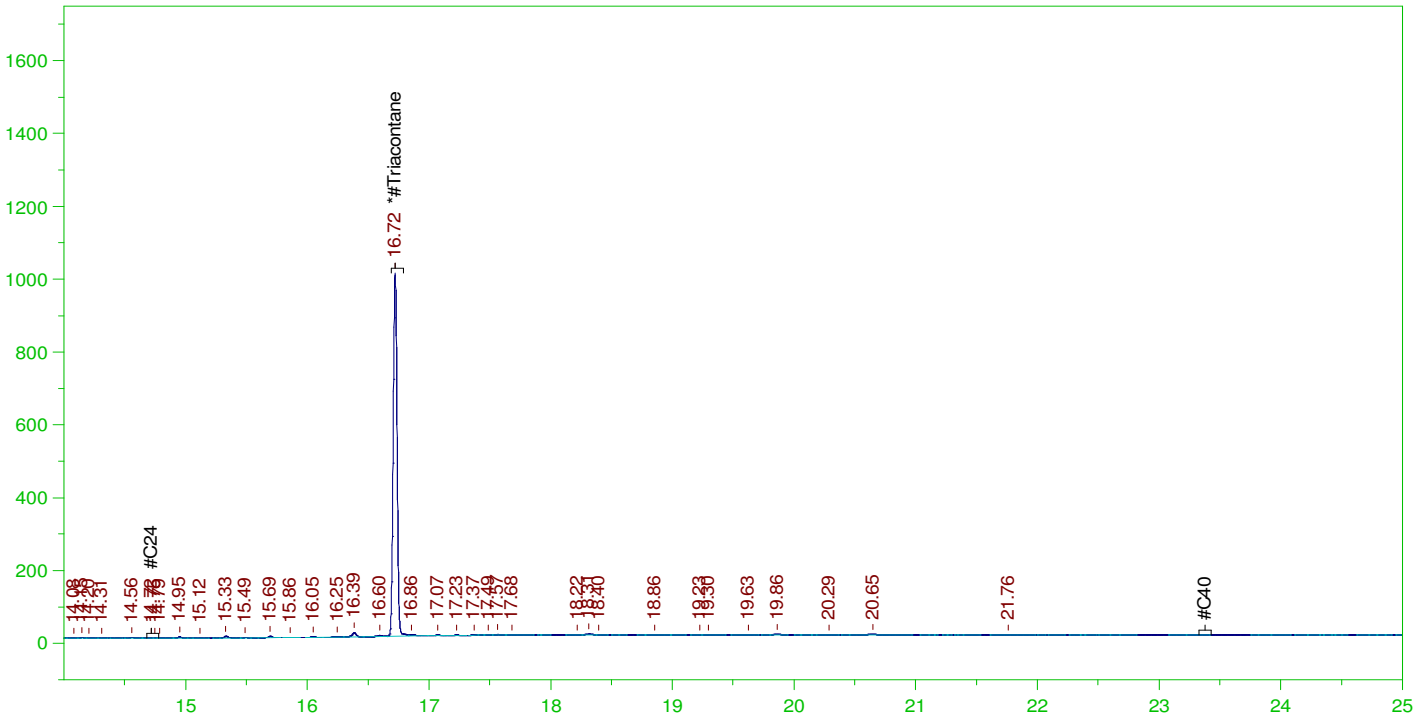
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.594	.19	.108	56.75	-
*1-Chlorooctadecane	13.436	.19	.	.03	-
*#Triacontane	16.722	.19	.083	43.76	-

DRO Area:294622.5 DRO Amount: 9.552659E-03
TEH Area:490696.4 TEH Amount: 1.591004E-02

ERH2360 (RHMW08) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0022.RAW B22010361-001D ;0113HP4 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010361-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0022.RAW
Date & Time Acquired: 1/13/2022 11:23:10 PM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

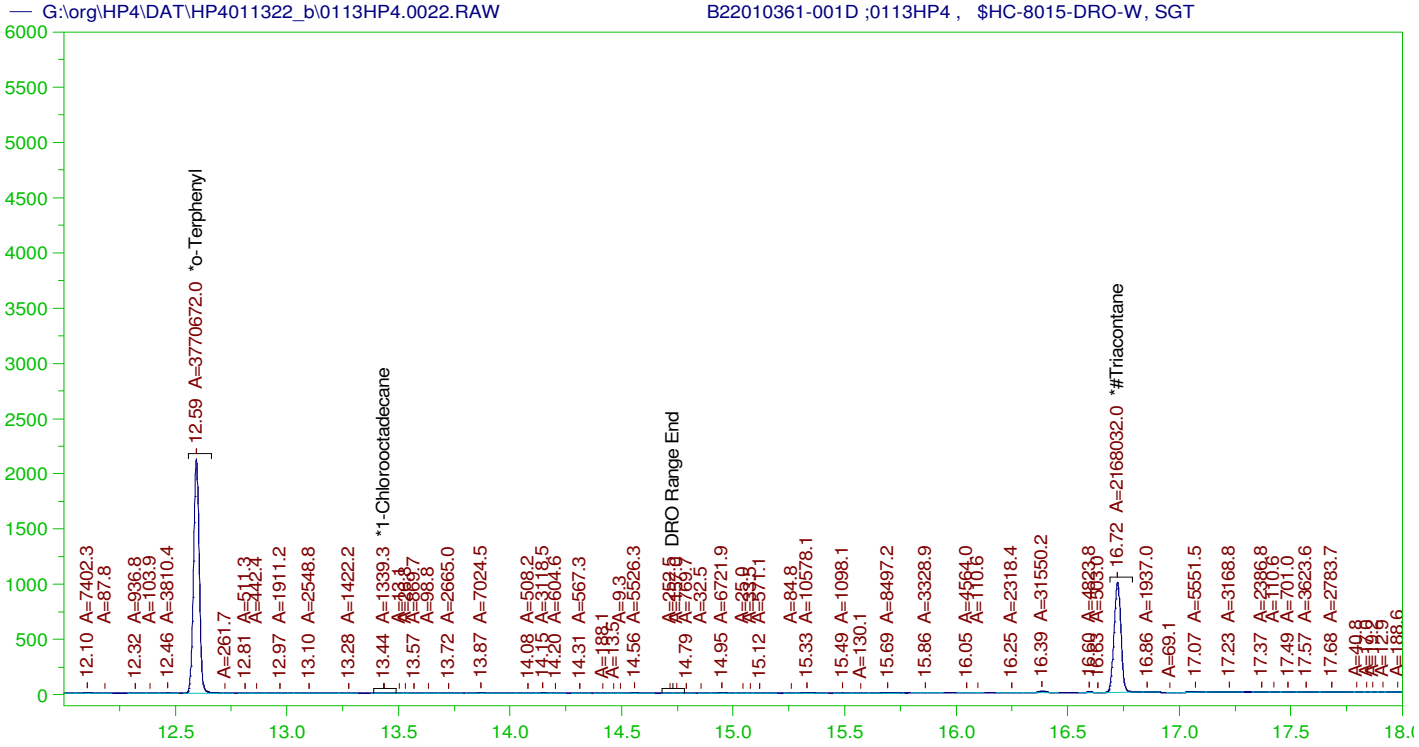
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.722	.476	.083	17.5	-

RRO Area:164158.3 RRO AMOUNT: 6.373585E-03

ERH2360 (RHMW08) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0022.RAW B22010361-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010361-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0022.RAW
Date & Time Acquired: 1/13/2022 11:23:10 PM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

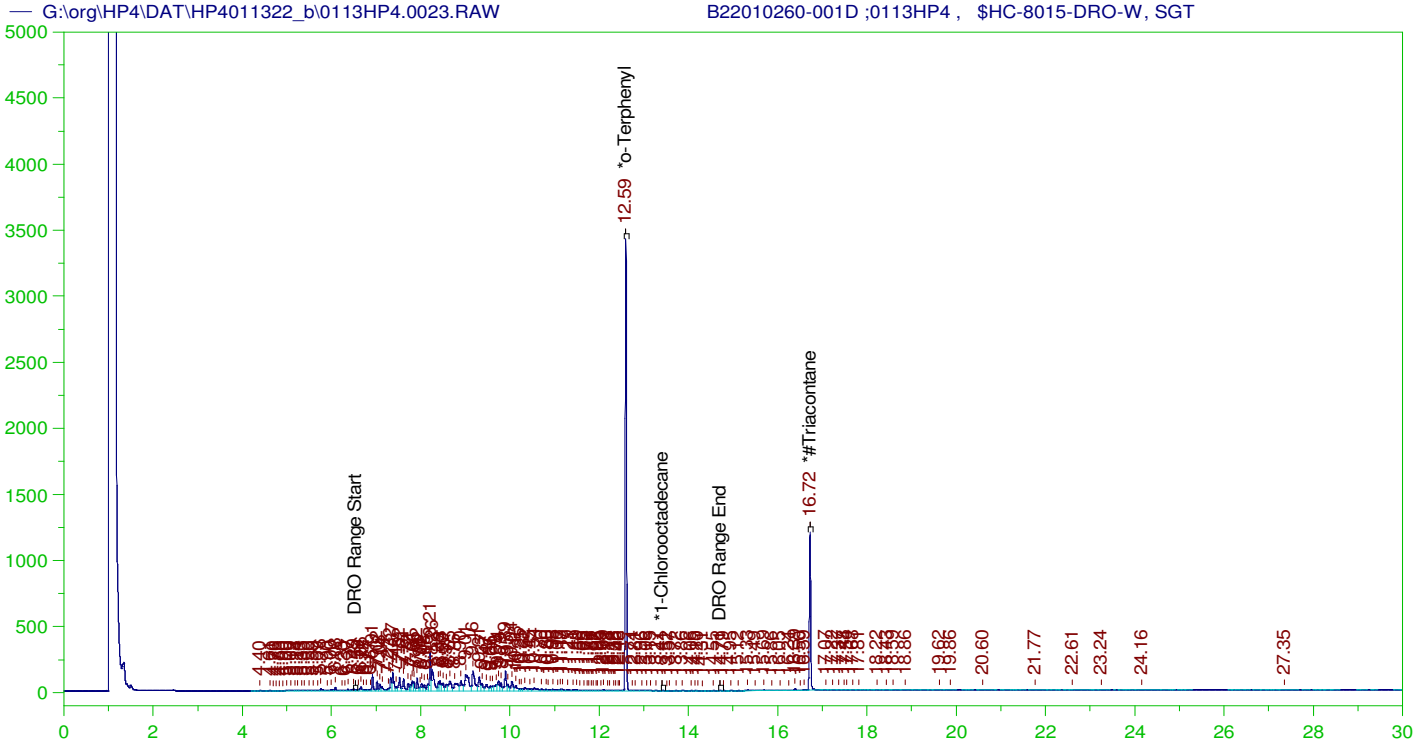
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.594	.19	.108	56.58	-
*1-Chlorooctadecane	13.436	.19	.	.02	-
*#Triacontane	16.722	.19	.083	43.41	-

DRO Area:173272.6 DRO Amount: 5.618085E-03
TEH Area:348812.7 TEH Amount: 1.130969E-02

ERH2326 (RHMW02) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0023.RAW B22010260-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010260-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0023.RAW
Date & Time Acquired: 1/14/2022 12:08:10 AM
Method File: G:\Org\HP4\methods\DR_8015-011323-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

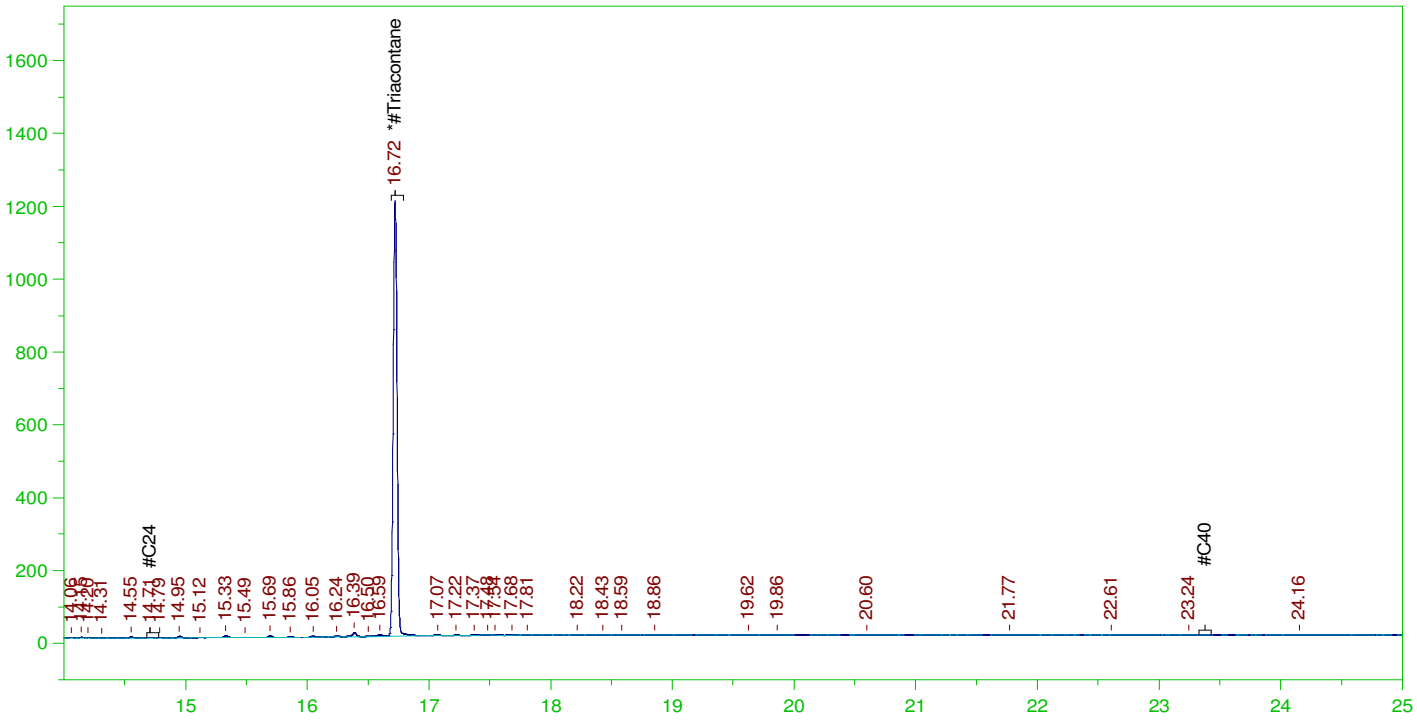
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.595	.198	.18	90.96	-
*1-Chlorooctadecane	13.406	.198	.	.08	-
*#Triacontane	16.722	.198	.104	52.32	-

DRO Area:1.07364E+07 DRO Amount: 0.3618971
TEH Area:1.129715E+07 TEH Amount: 0.3807984

ERH2326 (RHMW02) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0023.RAW B22010260-001D ;0113HP4 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010260-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0023.RAW
Date & Time Acquired: 1/14/2022 12:08:10 AM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

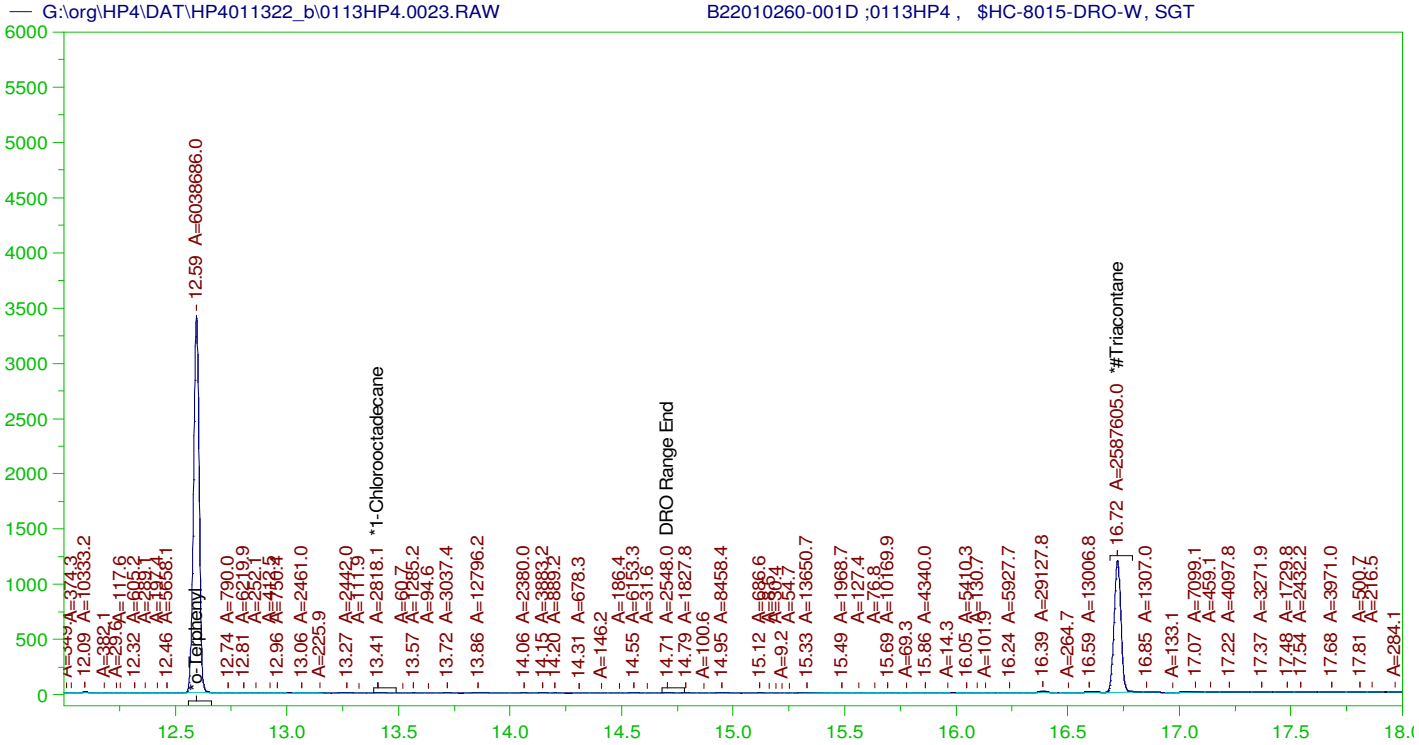
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.722	.495	.104	20.93	-

RRO Area:158452.5 RRO AMOUNT: 6.395699E-03

ERH2326 (RHMW02) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0023.RAW B22010260-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010260-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0023.RAW
Date & Time Acquired: 1/14/2022 12:08:10 AM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

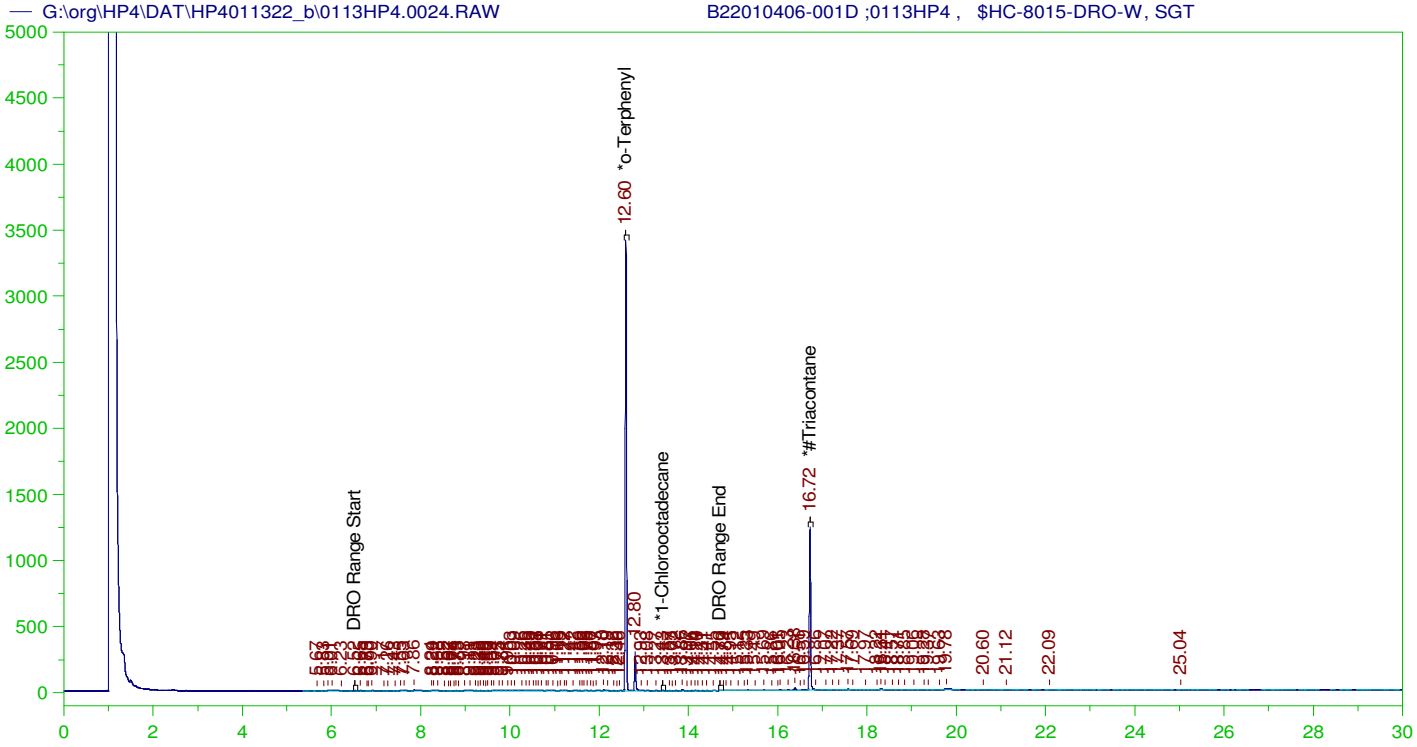
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.595	.198	.179	90.62	-
*1-Chlorooctadecane	13.406	.198	.	.04	-
*#Triacontane	16.722	.198	.103	51.81	-

DRO Area:9874127 DRO Amount: 0.3328319
TEH Area:1.035235E+07 TEH Amount: 0.3489516

ERH2368 (RHMW04) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0024.RAW B22010406-001D ;0113HP4 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010406-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0024.RAW
Date & Time Acquired: 1/14/2022 12:53:14 AM
Method File: G:\Org\HP4\methods\DR_8015-C24Ta-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102Ok-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

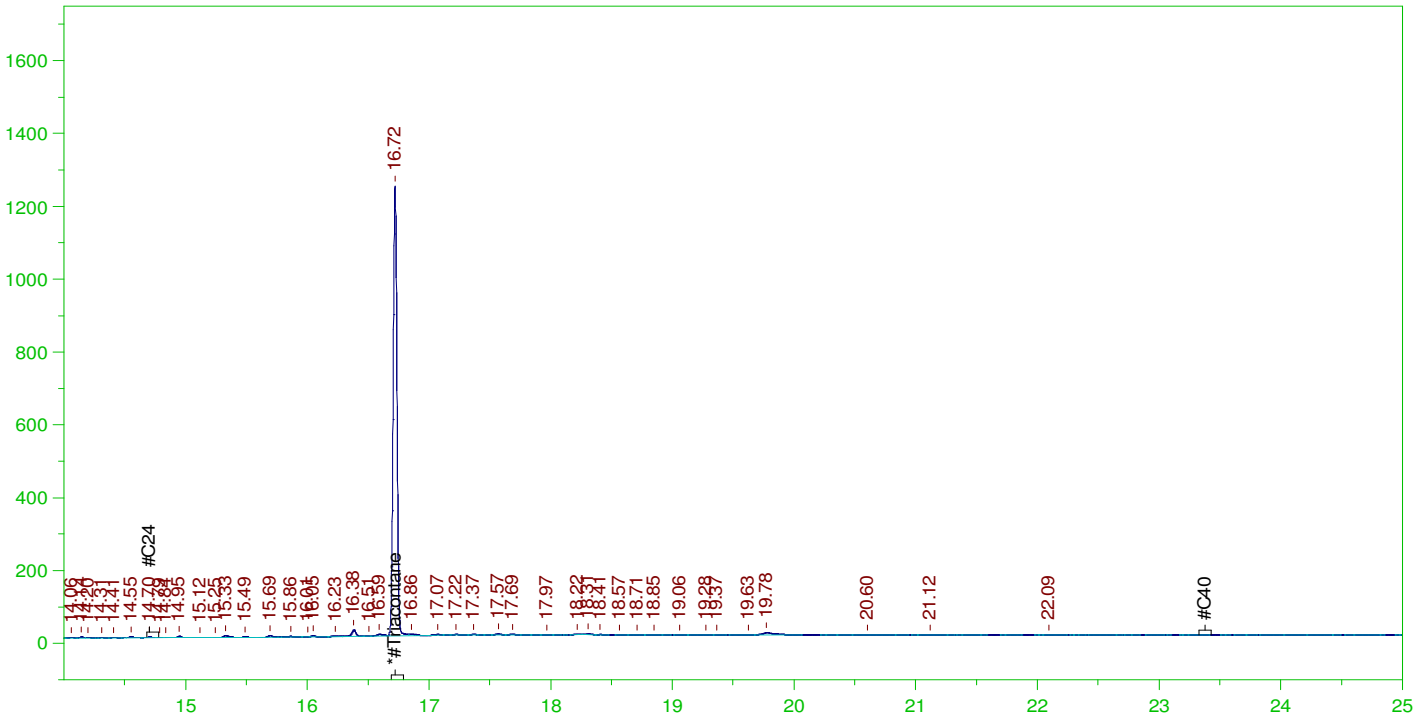
Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.595	.194	.175	90.16	-
*1-Chlorooctadecane	13.427	.194	.	.05	-
*#Triacontane	16.722	.194	.103	53.14	-

DRO Area:964980.6 DRO Amount: 3.189547E-02
TEH Area:1252537 TEH Amount: 4.140006E-02

ERH2368 (RHMW04) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0024.RAW B22010406-001D ;0113HP4 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010406-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0024.RAW
Date & Time Acquired: 1/14/2022 12:53:14 AM
Method File: G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD-SAMPLE.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

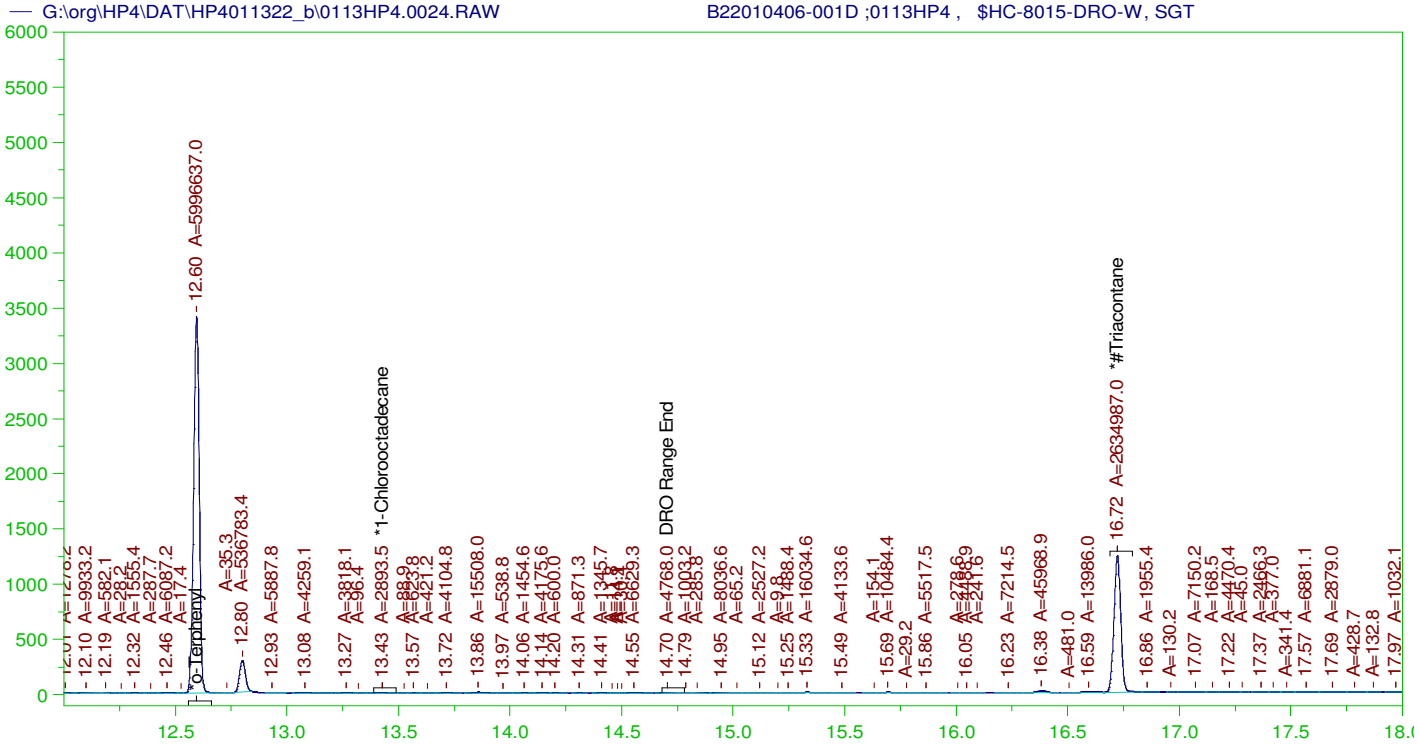
Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 14.68 to 23.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.722	.485	.103	21.25	-

RRO Area:254483.5 RRO AMOUNT: 1.007239E-02

ERH2368 (RHMW04) Batch ID: 162824

G:\org\HP4\DAT\HP4011322_b\0113HP4.0024.RAW B22010406-001D ;0113HP4 , $HC-8015-DRO-W, SGT



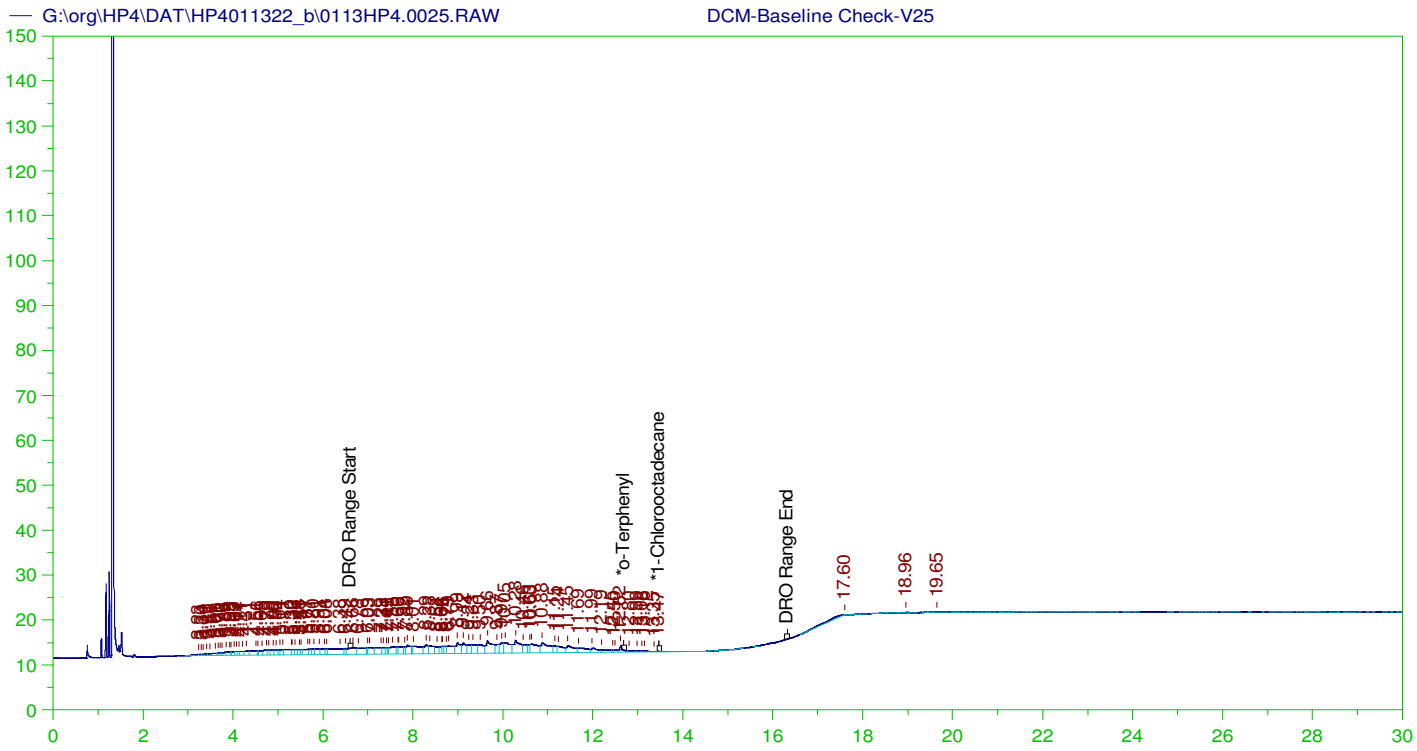
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010406-001D ;0113HP4 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0024.RAW
Date & Time Acquired: 1/14/2022 12:53:14 AM
Method File: G:\Org\HP4\methods\DS_8015-T-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24-TRI.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.595	.194	.175	89.99	-
*1-Chlorooctadecane	13.427	.194	. .04		-
*#Triacontane	16.722	.194	.102	52.75	-

DRO Area:780326.4 DRO Amount: 0.0257921
TEH Area:1039684 TEH Amount: 3.436465E-02



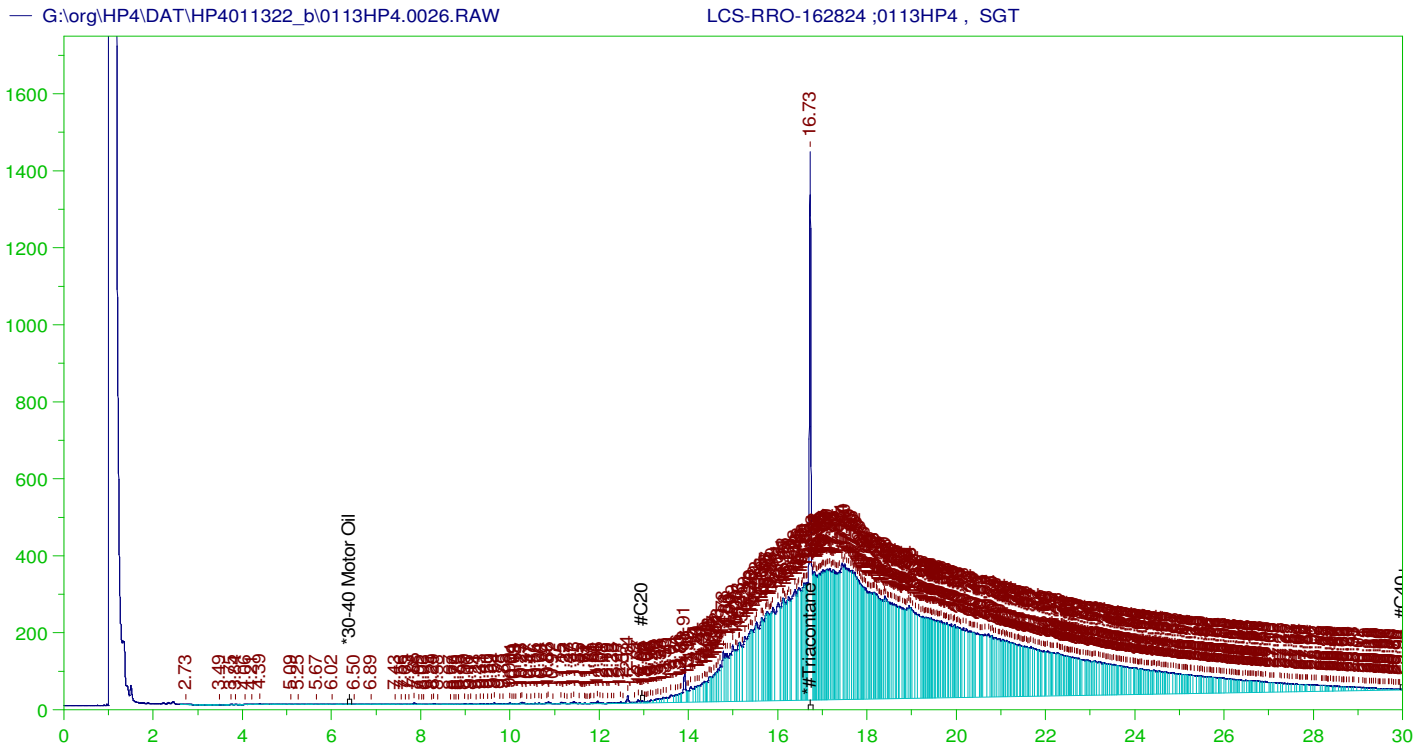
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V25
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0025.RAW
Date & Time Acquired: 1/14/2022 1:38:14 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.904	200.	.	. -
*1-Chlorooctadecane	13.466	200.	.034	.02 -

DRO Area:556084.2 DRO Amount: 18.93163
TEH Area:771578.1 TEH Amount: 26.26803



RESIDUAL RANGE ORGANICS CHROMATOGRAM

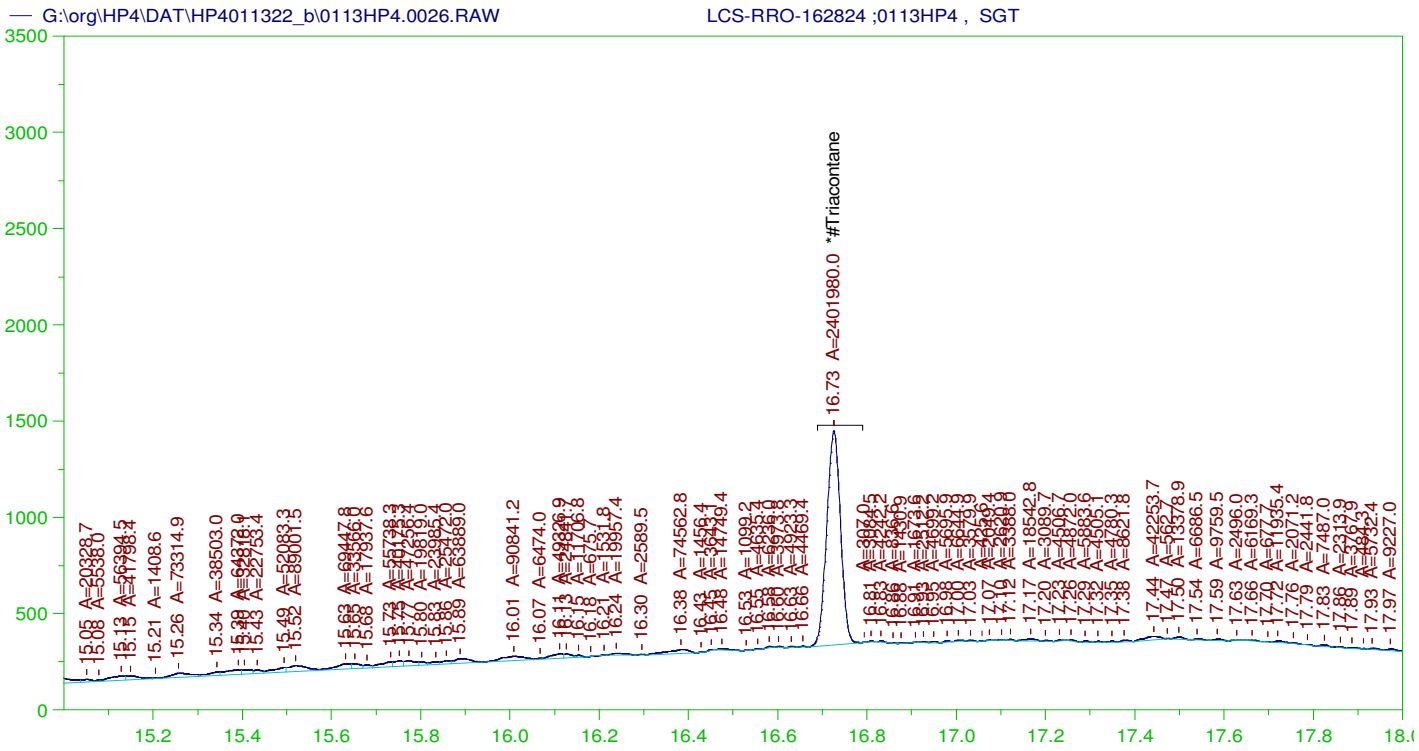
Sample Name: LCS-RRO-162824 ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0026.RAW
Date & Time Acquired: 1/14/2022 2:23:14 AM
Method File: G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.726	.5	.184	36.8	-

~~RRO~~ TEH (Oil Range) Area:1.169961E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.769596

AMN 02/01/2022



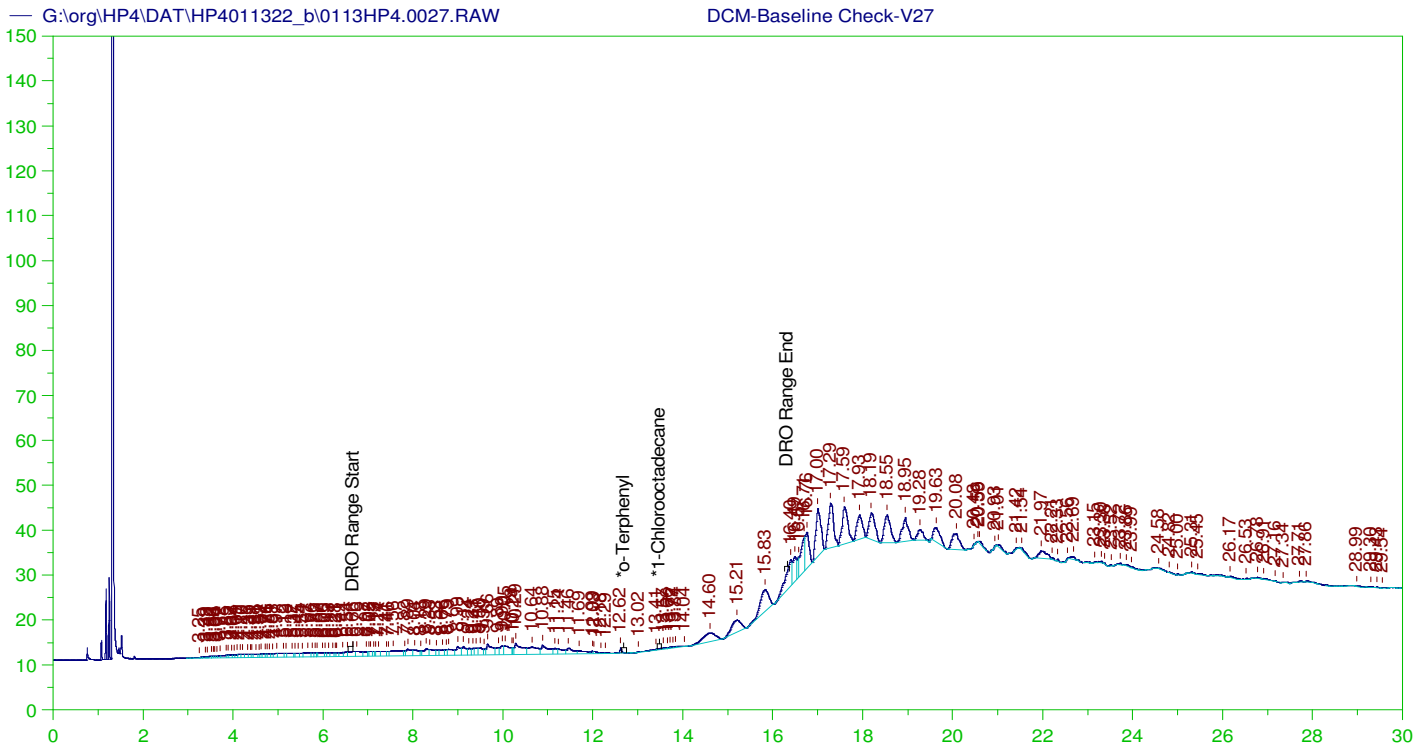
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCS-RRO-162824 ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0026.RAW
Date & Time Acquired: 1/14/2022 2:23:14 AM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.726	.5	.096	19.24	-

RRO Area:2767627 RRO AMOUNT: 0.1128282



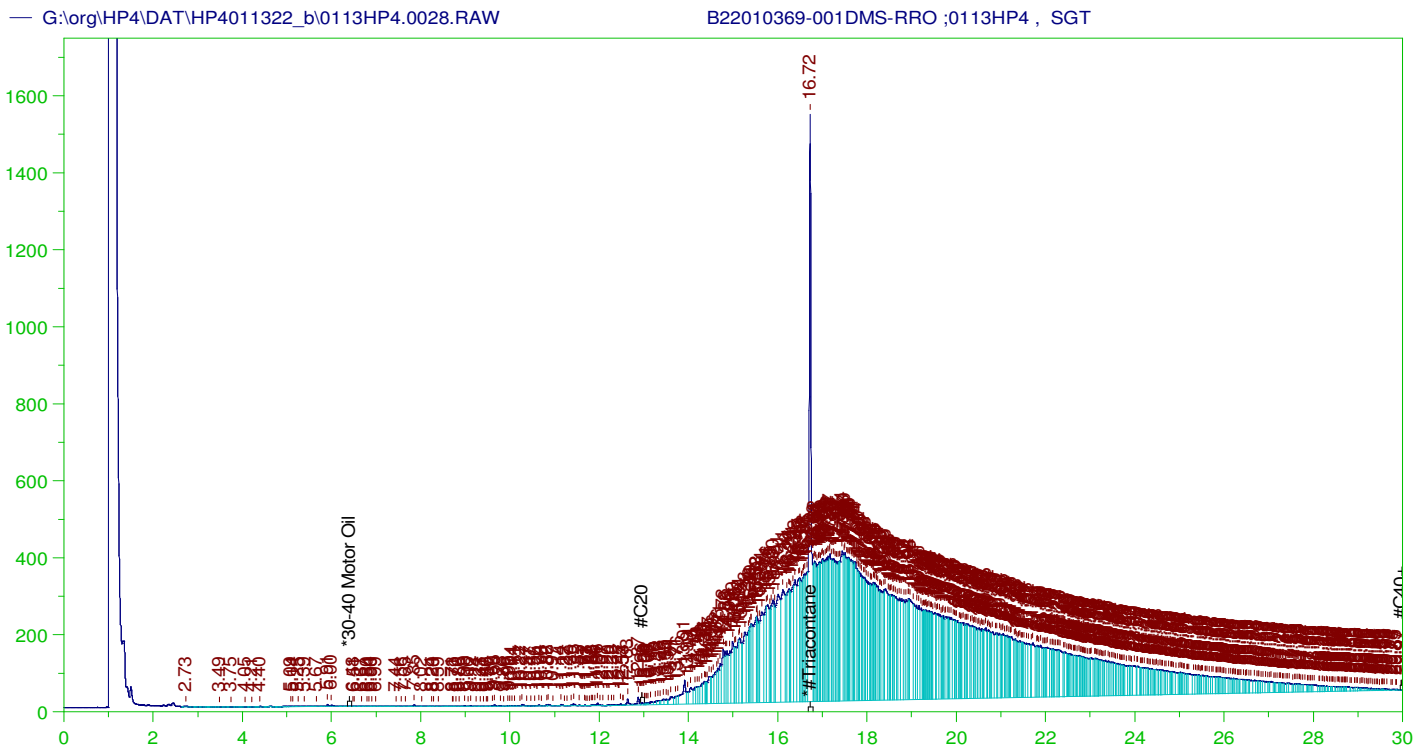
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V27
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0027.RAW
Date & Time Acquired: 1/14/2022 3:08:13 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.962	200.	.	.	-
*1-Chlorooctadecane	29.962	200.	.	.	-

DRO Area:557640.4 DRO Amount: 18.98462
TEH Area:1533864 TEH Amount: 52.21969



RESIDUAL RANGE ORGANICS CHROMATOGRAM

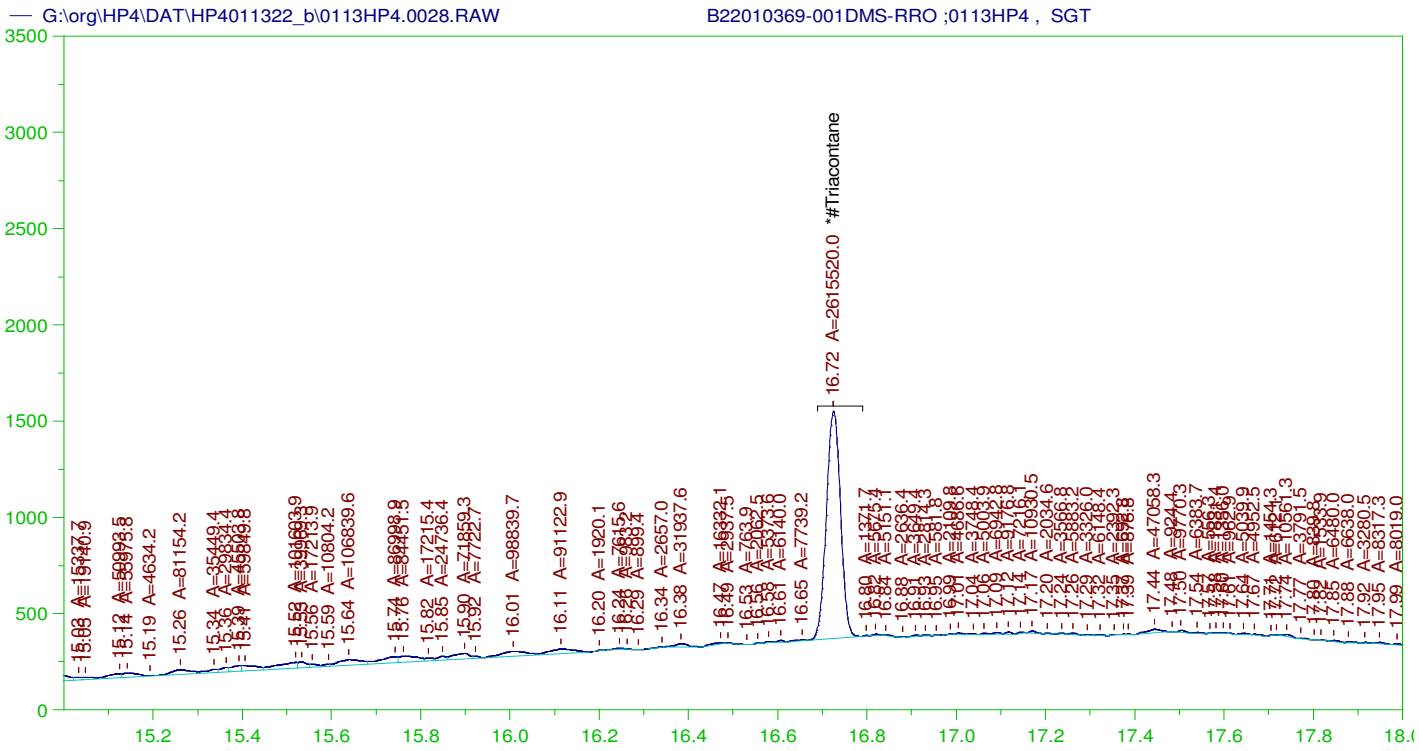
Sample Name: B22010369-001DMS-RRO ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0028.RAW
Date & Time Acquired: 1/14/2022 3:53:11 AM
Method File: G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.725	.49	.202	41.11	-

~~RRO~~ TEH (Oil Range) Area:1.2869E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5.143456

AMN 02/01/2022



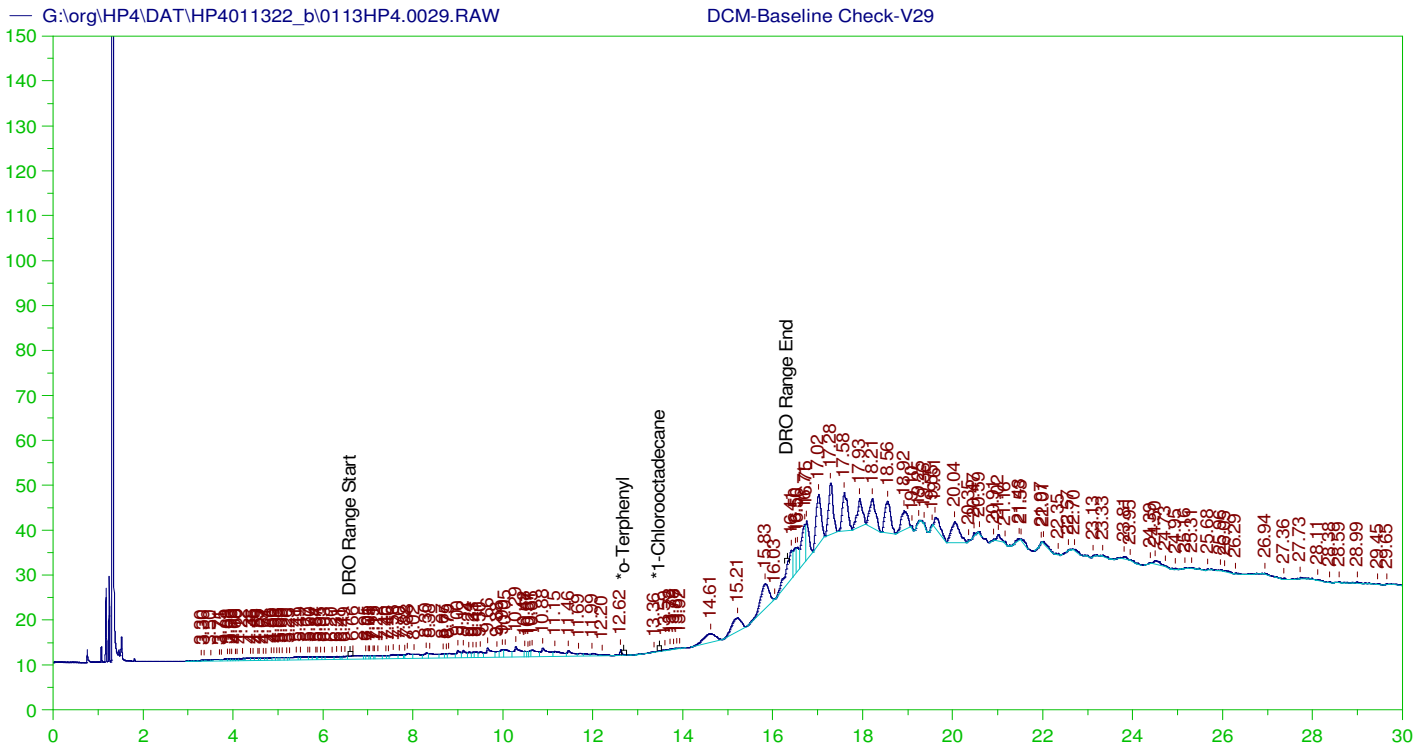
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010369-001DMS-RRO ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0028.RAW
Date & Time Acquired: 1/14/2022 3:53:11 AM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.725	.49	.103	20.95	-

RRO Area:2814618 RRO AMOUNT: 0.112494



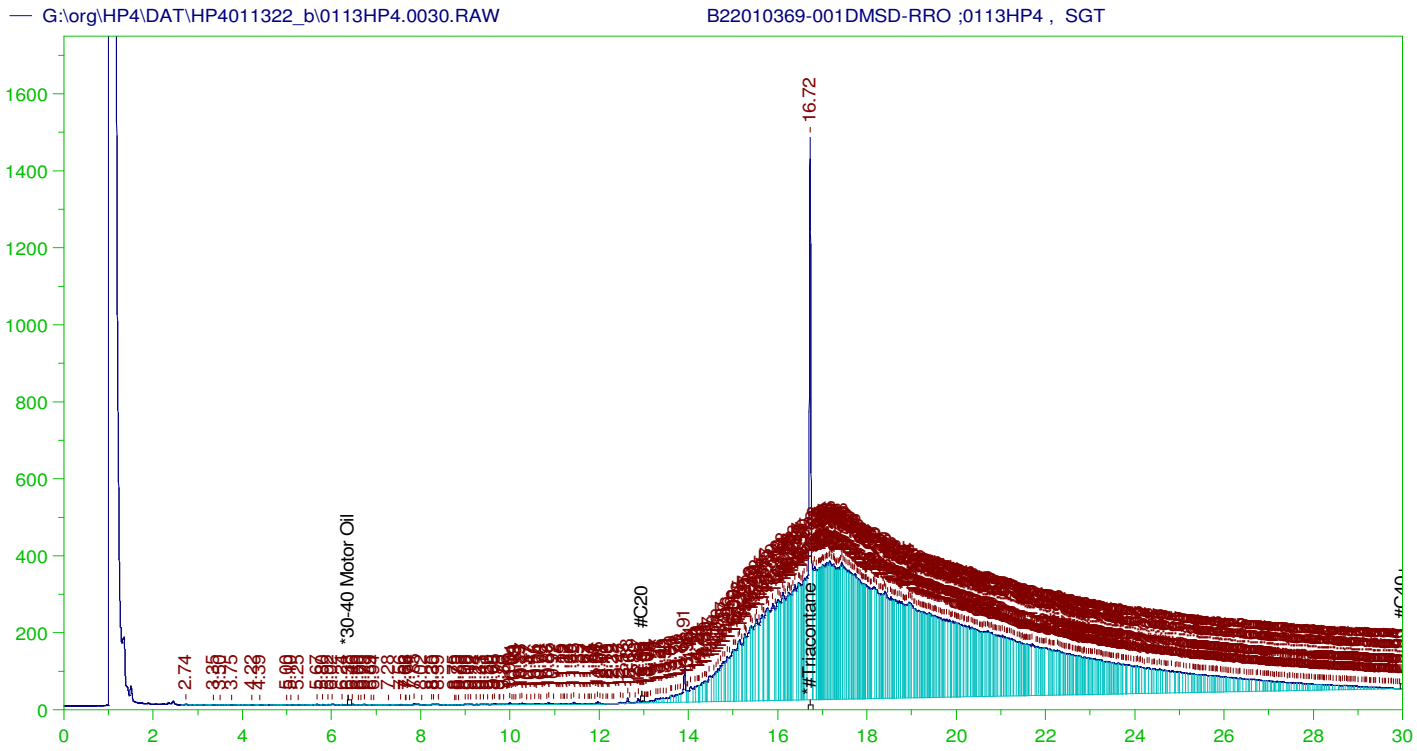
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V29
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0029.RAW
Date & Time Acquired: 1/14/2022 4:38:07 AM
Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.809	200.	.	.	-
*1-Chlorooctadecane	29.809	200.	.	.	-

DRO Area:485728 DRO Amount: 16.53639
TEH Area:1427380 TEH Amount: 48.59451



RESIDUAL RANGE ORGANICS CHROMATOGRAM

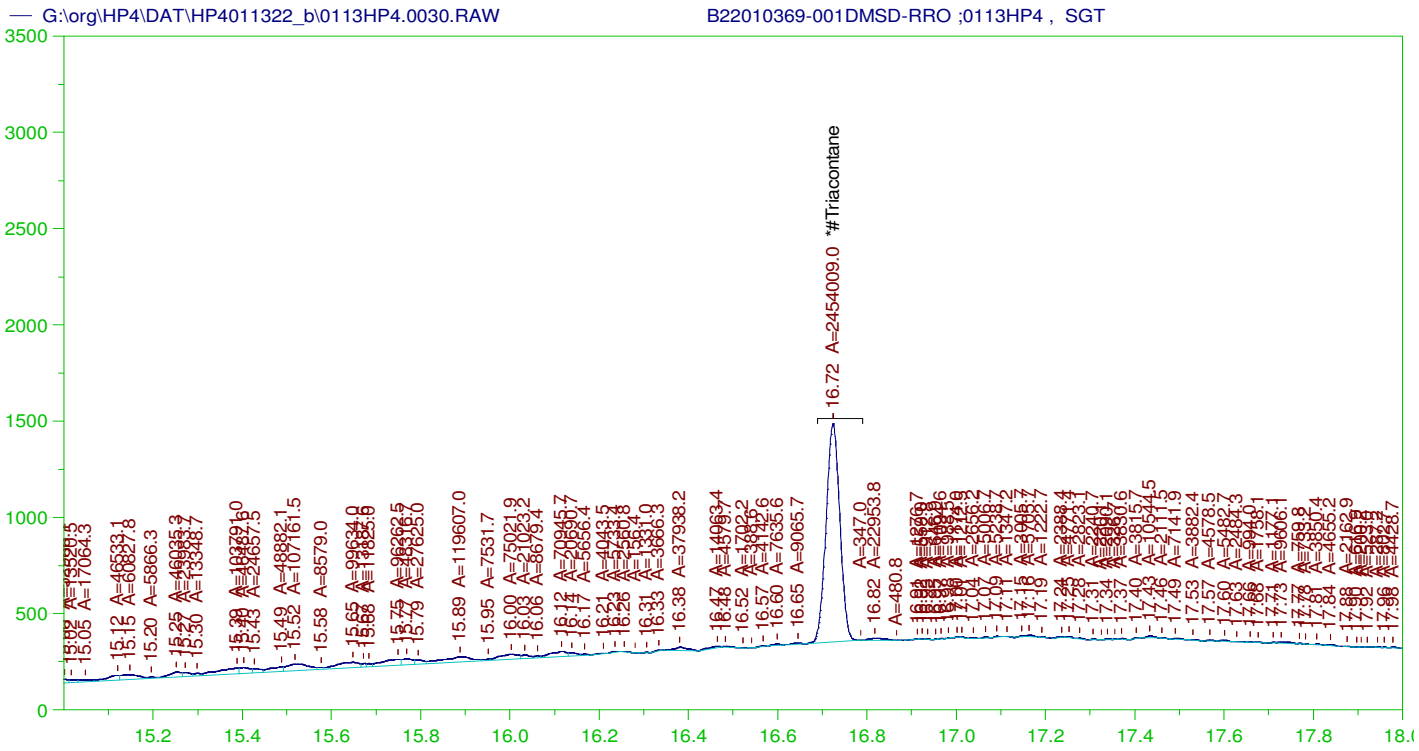
Sample Name: B22010369-001DMSD-RRO ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0030.RAW
Date & Time Acquired: 1/14/2022 5:23:06 AM
Method File: G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.724	.481	.185	38.55	-

~~RRO~~ TEH (Oil Range) Area:1.217963E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.774312

AMN 02/01/2022



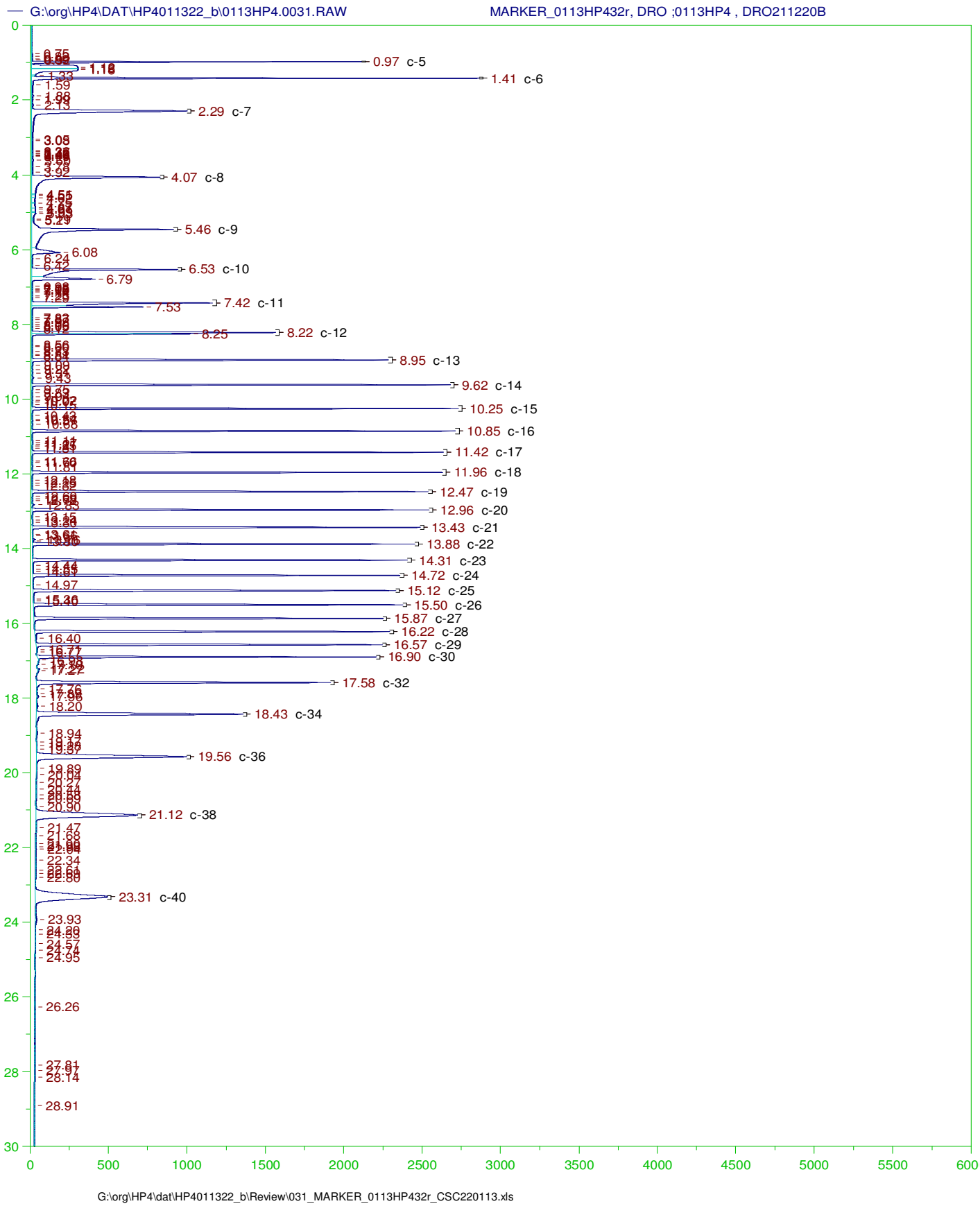
RESIDUAL RANGE ORGANICS CHROMATOGRAM

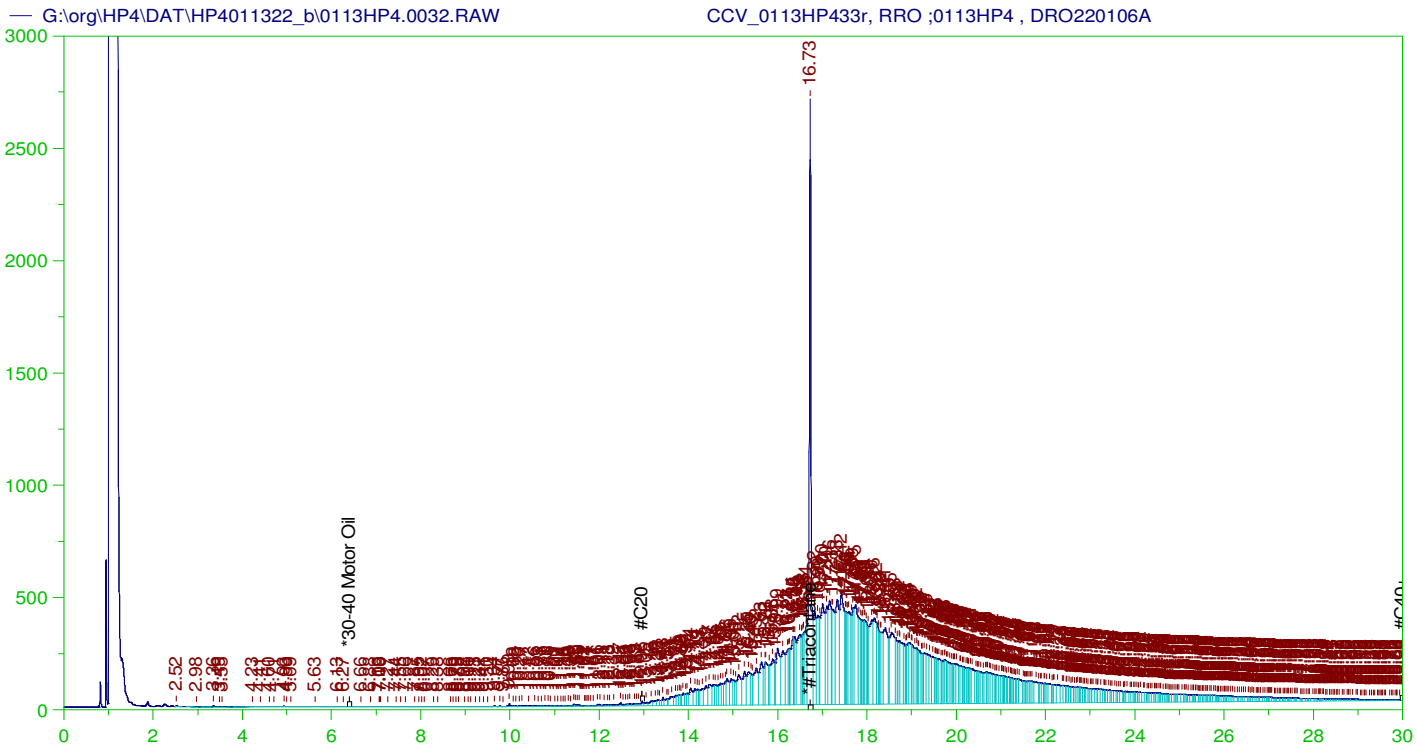
Sample Name: B22010369-001DMSD-RRO ;0113HP4 , SGT
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0030.RAW
Date & Time Acquired: 1/14/2022 5:23:06 AM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.724	.481	.094	19.65	-

RRO Area:2508200 RRO AMOUNT: 9.831936E-02


G:\org\HP4\DAT\HP4011322_b\0113HP4.0031.RAW
MARKER_0113HP432r, DRO ;0113HP4 , DRO211220B
0.97 c-5
1.41 c-6
2.29 c-7
4.07 c-8
5.46 c-9
6.08
6.53 c-10
6.79
7.42 c-11
7.53
8.22 c-12
8.25
8.95 c-13
9.62 c-14
10.25 c-15
10.85 c-16
11.42 c-17
11.96 c-18
12.47 c-19
12.96 c-20
13.43 c-21
13.88 c-22
14.31 c-23
14.72 c-24
15.12 c-25
15.50 c-26
15.87 c-27
16.22 c-28
16.40
16.57 c-29
16.90 c-30
17.58 c-32
18.20
18.43 c-34
18.94
19.56 c-36
19.89
20.90
21.12 c-38
21.47
22.34
23.31 c-40
23.93
24.57
24.74
24.95
26.26
27.81
28.14
28.91
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
600
G:\org\HP4\dat\HP4011322_b\Review\031_MARKER_0113HP432r_CSC220113.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0113HP433r, RRO ;0113HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0032.RAW
Date & Time Acquired: 1/14/2022 6:53:10 AM
Method File: G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.92 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.726	500.	323.816	64.76	-

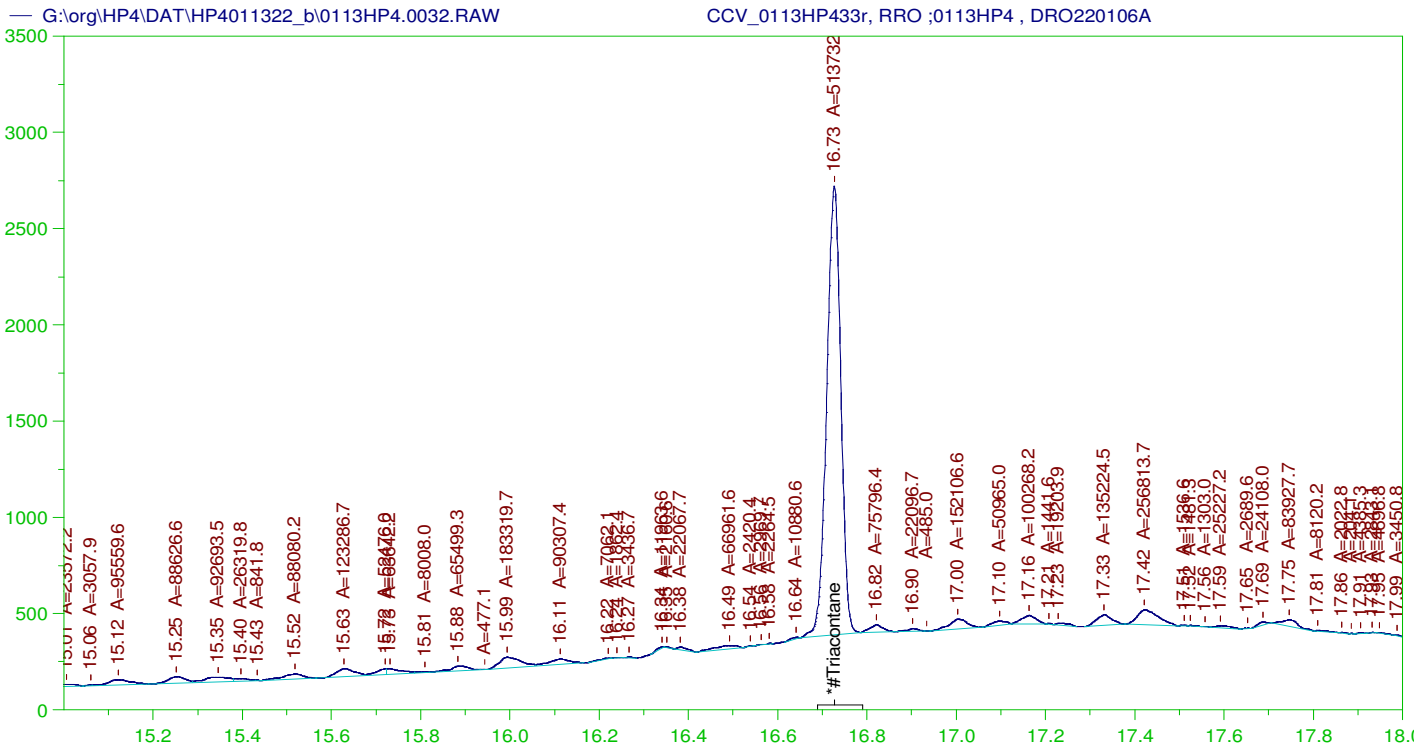
~~RRO~~ TEH (Oil Range) Area:1.166884E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4757.051

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011322_b\0113HP4.0032.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.726	200.	323.816	161.91	75-125

AMN 02/01/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0113HP433r, RRO ;0113HP4 , DRO220106A
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0032.RAW
Date & Time Acquired: 1/14/2022 6:53:10 AM
Method File: G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AD.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
Rt range for Residual Range Organics: 12.92 to 30.05

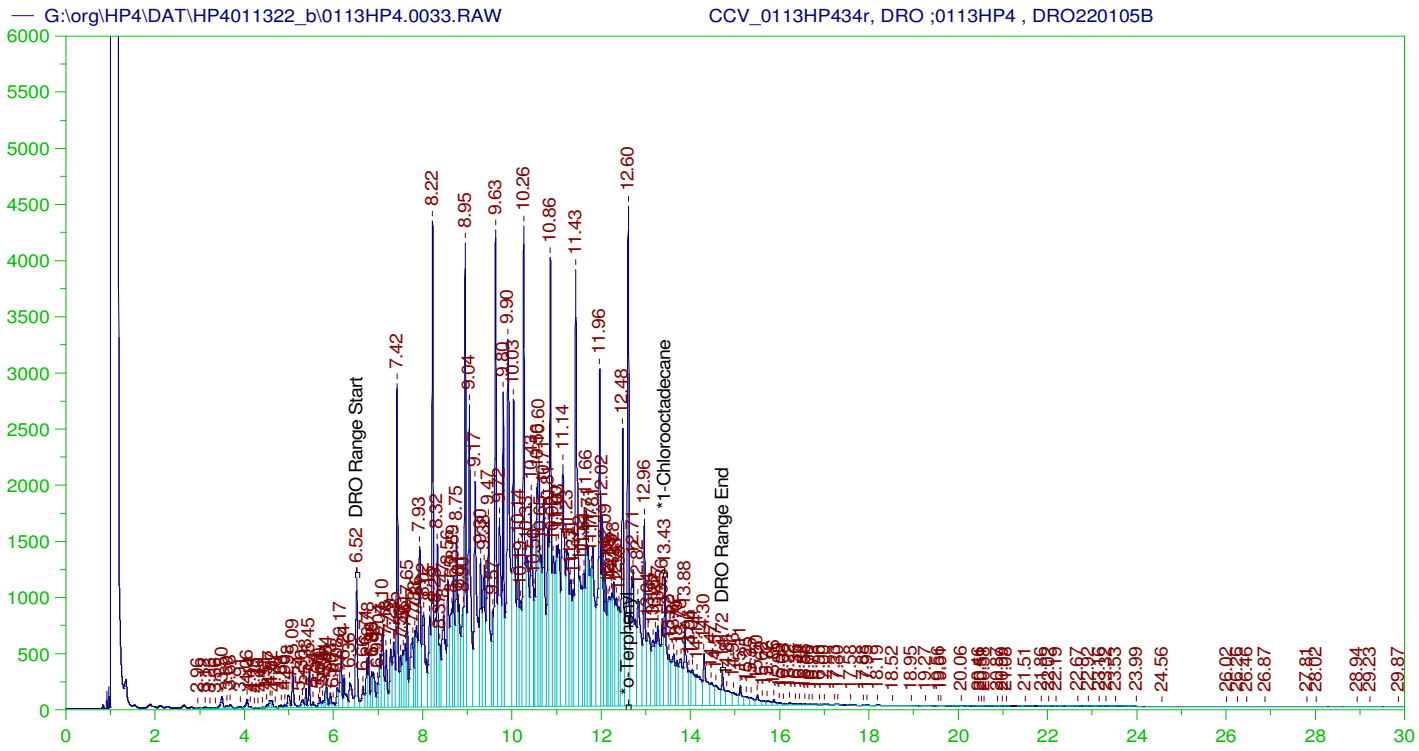
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.726	500.	205.708	41.14	-

RRO Area:3736928 RRO AMOUNT: 152.3439

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011322_b\0113HP4.0032.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.726	200.	205.708	102.85	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0113HP434r, DRO ;0113HP4 , DRO220105B
Raw File: G:\org\HP4\DAT\HP4011322_b\0113HP4.0033.RAW
Date & Time Acquired: 1/14/2022 7:38:00 AM
Method File: G:\Org\HP4\methods\DC_8015-C24-OK-L%.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.602	200.	362.815	181.41	-
*1-Chlorooctadecane	13.429	200.	116.146	58.07	-

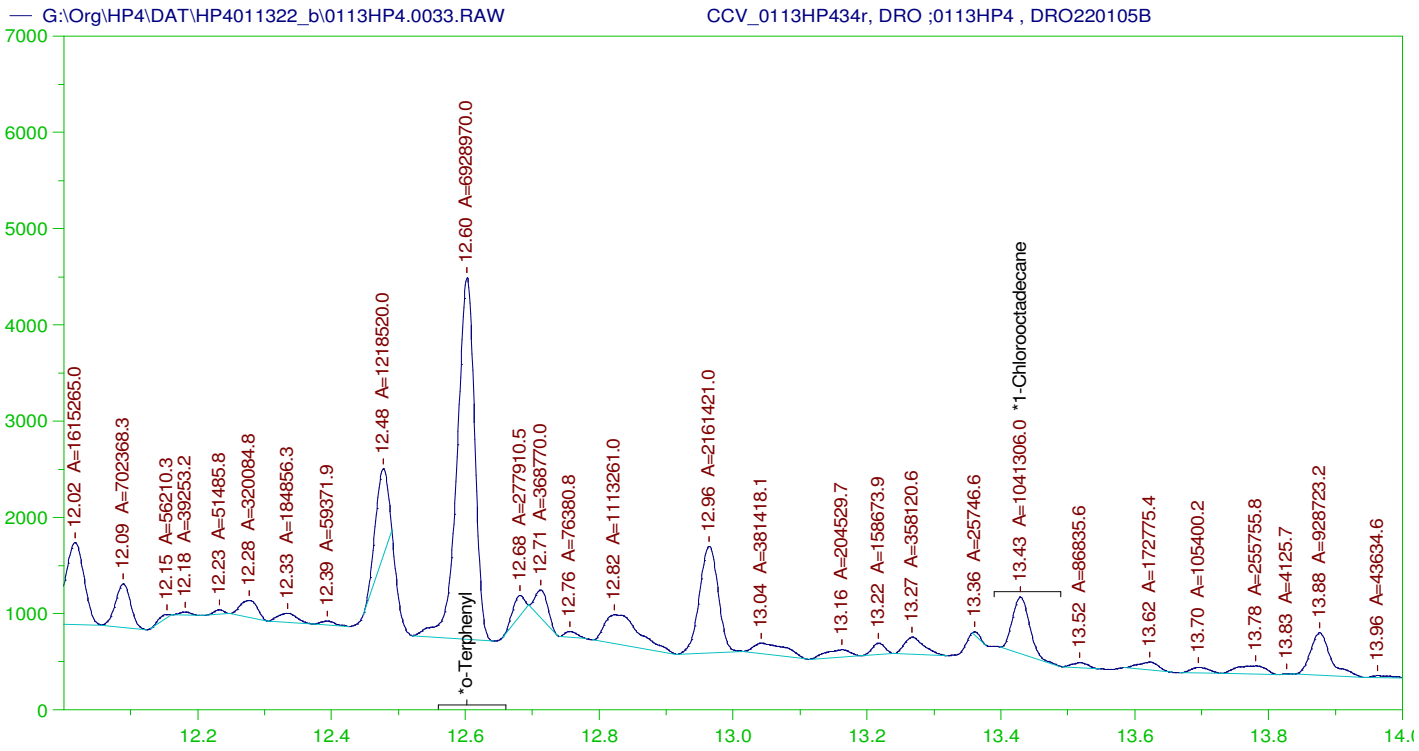
DRO Area:4.374397E+08 DRO Amount: 14892.44
TEH Area:4.537916E+08 TEH Amount: 15449.13

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4011322_b\0113HP4.0033.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15449.13	102.99	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.602	200.	362.815	181.41	85-115
*1-Chlorooctadecane	13.429	200.	116.146	58.07	85-115

G:\org\HP4\dat\HP4011322_b\Review\033_CCV_0113HP434r_DC_8015-C24-OK-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0113HP434r, DRO ;0113HP4 , DRO220105B
Raw File: G:\Org\HP4\DAT\HP4011322_b\0113HP4.0033.RAW
Date & Time Acquired: 1/14/2022 7:38:00 AM
Method File: G:\Org\HP4\methods\DS_8015-C24-OK-L#.met
Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OK-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
Rt range for Diesel Range Organics: 6.49 to 14.78

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.602	200.	207.954	103.98	-
*1-Chlorooctadecane	13.429	200.	31.252	15.63	-

DRO Area:1.875865E+08 DRO Amount: 6386.299
TEH Area:1.977656E+08 TEH Amount: 6732.84

CONTINUING CALIBRATION REPORT: G:\Org\HP4\DAT\HP4011322_b\0113HP4.0033.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	6732.84	44.89	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.602	200.	207.954	103.98	85-115
*1-Chlorooctadecane	13.429	200.	31.252	15.63	85-115

G:\org\HP4\dat\HP4011322_b\Review\033_CCV_0113HP434r_DS_8015-C24-OK-L#.xls

Write Sequence	Insert Entries(Have the fist cell for entries selected)							
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.01r	DCM-Baseline Check-V01	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.02r	DCM-Baseline Check-V02	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.03r	MARKER_0111HP403r, DRO ;0111HP4 , DRO211220B	g:\org\HP4\Methods\CSC220111.met	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.04r	CCV_0111HP404r, RRO ;0111HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.05r	CCV_0111HP405r, DRO ;0111HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.06r	DCM-Baseline Check-V06	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.07r	LCS-162824 ;0111HP4 ,	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.08r	MB-162824 ;0111HP4 ,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.09r	B22010405-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.10r	B22010409-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.11r	B22010410-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.12r	DCM-Baseline Check-V12	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.13r	B22010411-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	970	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.14r	B22010413-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.15r	B22010406-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.16r	B22010338-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.17r	MARKER_0111HP417r, DRO ;0111HP4 , DRO211220B	g:\org\HP4\Methods\CSC220111.met	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.18r	CCV_0111HP418r, RRO ;0111HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.19r	CCV_0111HP419r, DRO ;0111HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.20r	DCM-Baseline Check-V20	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.21r	B22010403-001D ;0111HP4 , $HC-8015-DRO-W, Needs rr to verify unusual peak	G:\Org\HP4\methods\DR_8015-C24T-OJ-L0.met	1030	1	1	1	0	No Integrations

G:\org\HP4\DAT\HP4011122_b\0111HP4.22r	B22010262-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-011122-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0 The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with Set Baseline Now at 26.16 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.23r	B22010260-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0 The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.24r	DCM-Baseline Check-V24	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.25r	B22010369-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-C24T-OK-L%.met G:\Org\HP4\Methods\D3_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0 The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.26r	B22010369-001DMS ;0111HP4 ,	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1030	1	1	1	0 The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.27r	B22010369-001DMSD ;0111HP4 ,	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1060	1	1	1	0 The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.28r	DCM-Baseline Check-V28	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.29r	B22010366-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-011129-OK-L%.met G:\Org\HP4\Methods\D3_ORO-011129-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0 The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.30r	B22010366-002B ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\D3_8015-011129-OK-L%.met G:\Org\HP4\Methods\D3_ORO-011129-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0 The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.31r	B22010361-001D ;0111HP4 , $HC-8015-DRO-W, Needs rerun due to possible carry over	G:\Org\HP4\methods\DR_8015-C24T-OJ-L0.met	1050	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.32r	MARKER_0111HP432r, DRO ;0111HP4 , DRO211220B	g:\org\HP4\Methods\CSC220111.met	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.33r	CCV_0111HP433r, RRO ;0111HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0 The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.34r	CCV_0111HP434r, DRO ;0111HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0 The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.35r	DCM-Baseline Check-V35	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.36r	DCM-Baseline Check-V36	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.37r	B22010403-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0 The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.38r	B22010361-001D ;0111HP4 , $HC-8015-DRO-W,	G:\Org\HP4\methods\DR_8015-011138-OK-L%.met G:\Org\HP4\Methods\D3_ORO-011138-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0 The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with Assigned Set Baseline Now at 27.74 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.39r	DCM-Baseline Check-V39	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.40r	LCS-RRO-162824 ;0111HP4 , Needs RR to verify sample did not concentrate	G:\Org\HP4\Methods\D3_ORO-T-AC-L0.met	1000	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.41r	DCM-Baseline Check-V41	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.42r	LCS-RRO-162824 ;0111HP4 , RR	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1000	1	1	1	0 The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.43r	B22010369-001DMSD-RRO ;0111HP4 ,	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1040	1	1	1	0 The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.

G:\org\HP4\DAT\HP4011122_b\0111HP4.44r	B22010369-001DMS-RRO ;0111HP4 ,	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1020	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.45r	MARKER_0111HP445r, DRO ;0111HP4 , DRO211220B	g:\org\HP4\Methods\CSC220111.met	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4011122_b\0111HP4.46r	CCV_0111HP446r, RRO ;0111HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011122_b\0111HP4.47r	CCV_0111HP447r, DRO ;0111HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.02.01 08:24:32 -07:00

Write Sequence	Insert Entries|Have the fist cell for entries selecte								
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.01r	DCM-Baseline Check-V01	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.02r	DCM-Baseline Check-V02	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.03r	MARKER_0113HP403r, DRO ;0113HP4 , DRO211220B	g:\org\HP4\Methods\CSC220113.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.04r	CCV_0113HP404r, RRO ;0113HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.05r	CCV_0113HP405r, DRO ;0113HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.06r	DCM-Baseline Check-V06	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.07r	DCM-Baseline Check-V07	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.08r	LCS-162824 ;0113HP4 , SGT	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.09r	MB-162824 ;0113HP4 , SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.10r	B22010369-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.11r	B22010369-001DMS ;0113HP4 , SGT	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.12r	B22010369-001DMSD ;0113HP4 , SGT	G:\Org\HP4\methods\D3_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1060	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.13r	DCM-Baseline Check-V13	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.14r	B22010366-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.15r	B22010366-002B ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1020	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.16r	B22010262-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.17r	MARKER_0113HP417r, DRO ;0113HP4 , DRO211220B	g:\org\HP4\Methods\CSC220113.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.18r	CCV_0113HP418r, RRO ;0113HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.19r	CCV_0113HP419r, DRO ;0113HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.20r	DCM-Baseline Check-V20	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.21r	B22010411-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	970	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.22r	B22010361-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.23r	B22010260-001D ;0113HP4 , $HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-011323-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1010	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.

G:\org\HP4\DAT\HP4011322_b\0113HP4.24r	B22010406-001D ;0113HP4 , $HC-8015-DRO-W; SGT	G:\Org\HP4\methods\DR_8015-C24T-OK-L%.met G:\Org\HP4\Methods\DR_ORO-S-AD-L%.met G:\Org\HP4\methods\DS_8015-T-OK-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.08 minutes Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.51 minutes and after the surrogate peak at 12.84 minutes, Set Basline All Valley on 14.07 minutes and and Set Baseline Now at 16.91 minutes and X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.25r	DCM-Baseline Check-V25	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.26r	LCS-RRO-162824 ;0113HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1000	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.27r	DCM-Baseline Check-V27	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.28r	B22010369-001DMS-RRO ;0113HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1020	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.29r	DCM-Baseline Check-V29	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.30r	B22010369-001DMSD-RRO ;0113HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1040	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.31r	MARKER_0113HP432r, DRO ;0113HP4 , DRO211220B	g:\org\HP4\Methods\CSC220113.met	1	1	1	1	0	No integrations
G:\org\HP4\DAT\HP4011322_b\0113HP4.32r	CCV_0113HP433r, RRO ;0113HP4 , DRO220106A	G:\Org\HP4\Methods\DC_ORO-T-AD-L%.met G:\Org\HP4\Methods\DS_ORO-T-AD-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline All Valley placed at 16.25 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4011322_b\0113HP4.33r	CCV_0113HP434r, DRO ;0113HP4 , DRO220105B	G:\Org\HP4\methods\DC_8015-C24-OK-L%.met G:\Org\HP4\methods\DS_8015-C24-OK-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.1 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed before at 12.49 minutes and after the surrogate peak at 12.78 minutes and X-axis scaling showing surrogate peak from 12-14 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.02.01 08:33:55 -07:00

Energy Laboratories Inc

Spike LOG

Standard ID:	DRO211101A		
Standard Name	OTP-4000 ug/mL DCM	Type:	Secondary
Date Prepared	11/1/2021	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	Open
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Used to Prep DRO-8015 ICAL and CCV Solutions		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC328	14408	25	mL	8/19/

Final Volume: 25 mL

Stock Source		**Base Units**	**Amount Added**
DRO200430B	O-Terphenyl	ug/mL	0.1012 g

Analytes		**CAS**	Conc:	**ug/mL**
A	O-Terphenyl	84-15-1		4000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO200430B		
Standard Name	O-Terphenyl	Type:	Neat
Date Prepared	4/30/2020	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	New
Vendor:	Chemservice		
Lot Number:	9972100		
Balance ID:			
Comments:	ID#: 6271		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	12650	500	mg	9/30/

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A O-Terphenyl	84-15-1	1

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER	N-12693-500MG
LOT NUMBER	9972100
DATE CERTIFIED	09/23/19
EXPIRATION DATE	09/30/24
CAS NUMBER	84-15-1
MOLECULAR FORMULA	C18H14
MOLECULAR WEIGHT	230.32
STORAGE	Store in a cool dry place.
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650
Opened:
o-Terphenyl
Expires: 9/30/2024
Rec'd: 4/30/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

PJLA Reference Material Producer
PJLA Testing

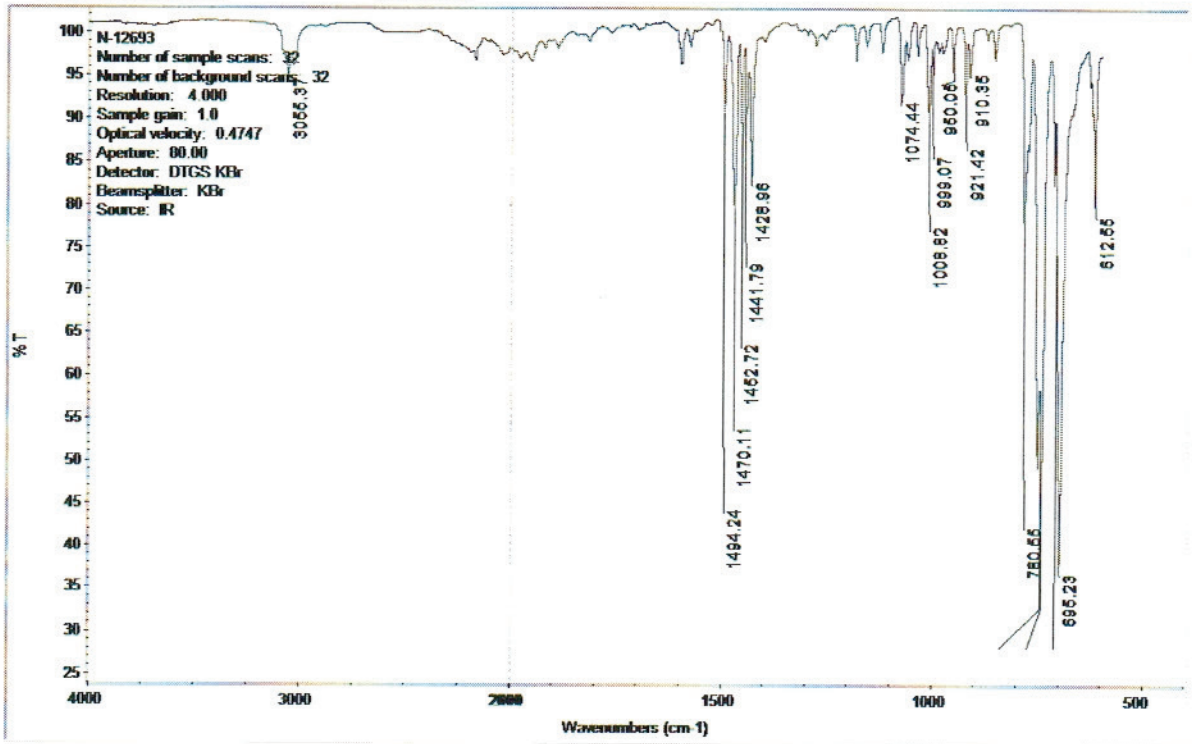
COA Form
Revision 3 (3/2015)

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth:SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

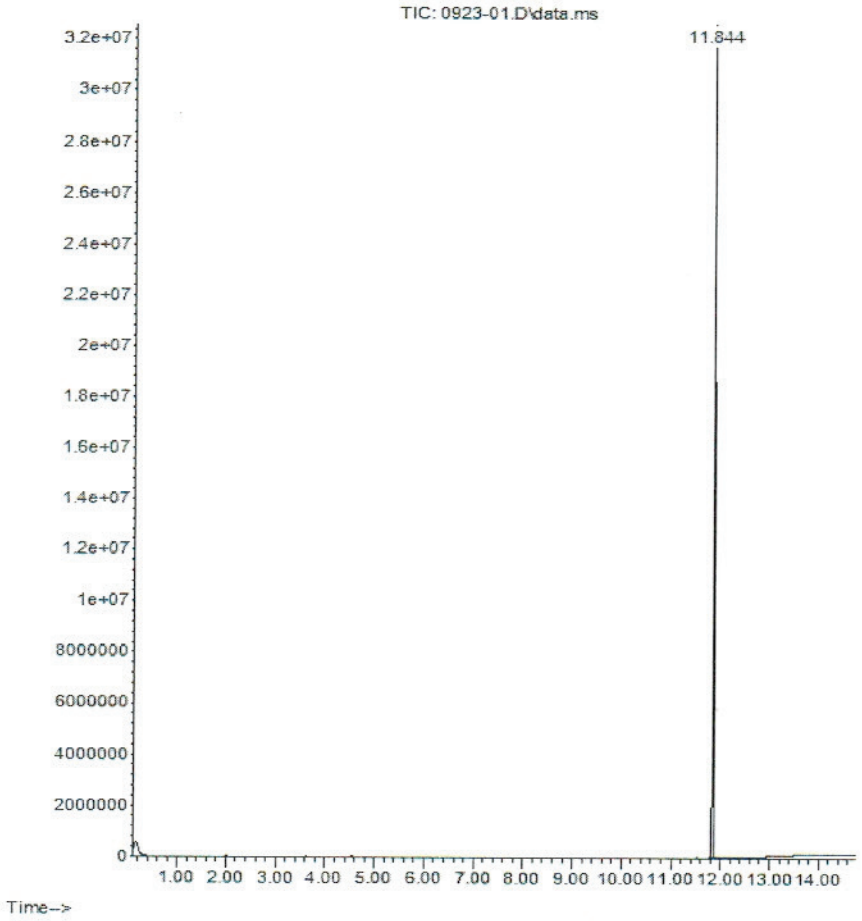
ERIN.M Mon Sep 23 10:55:51 2019

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

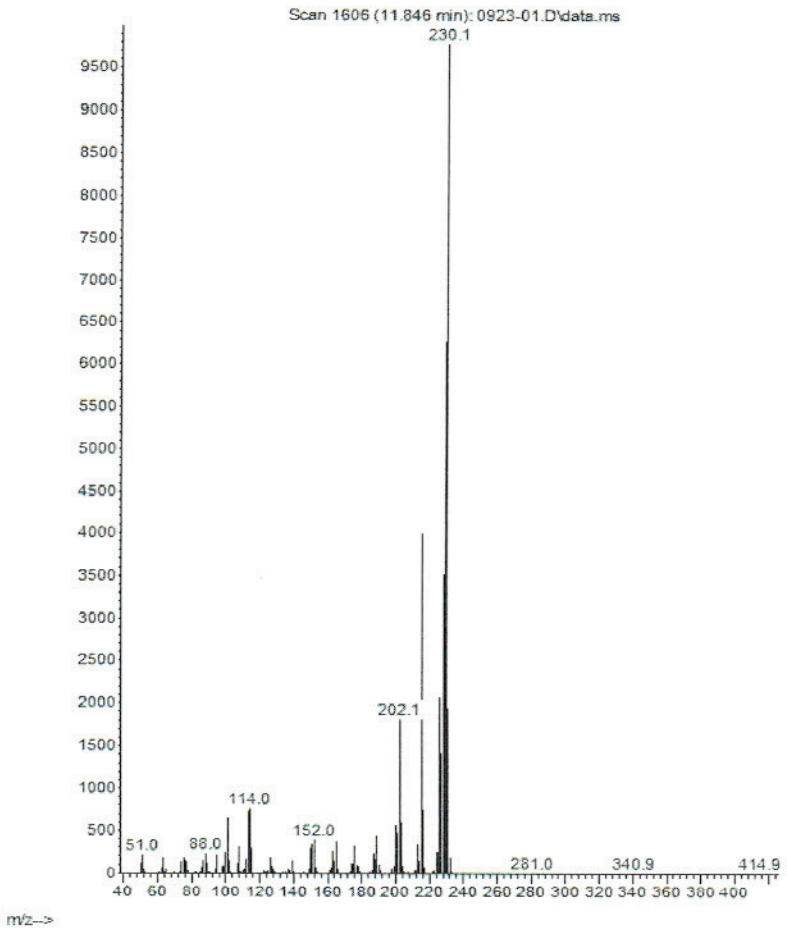


660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

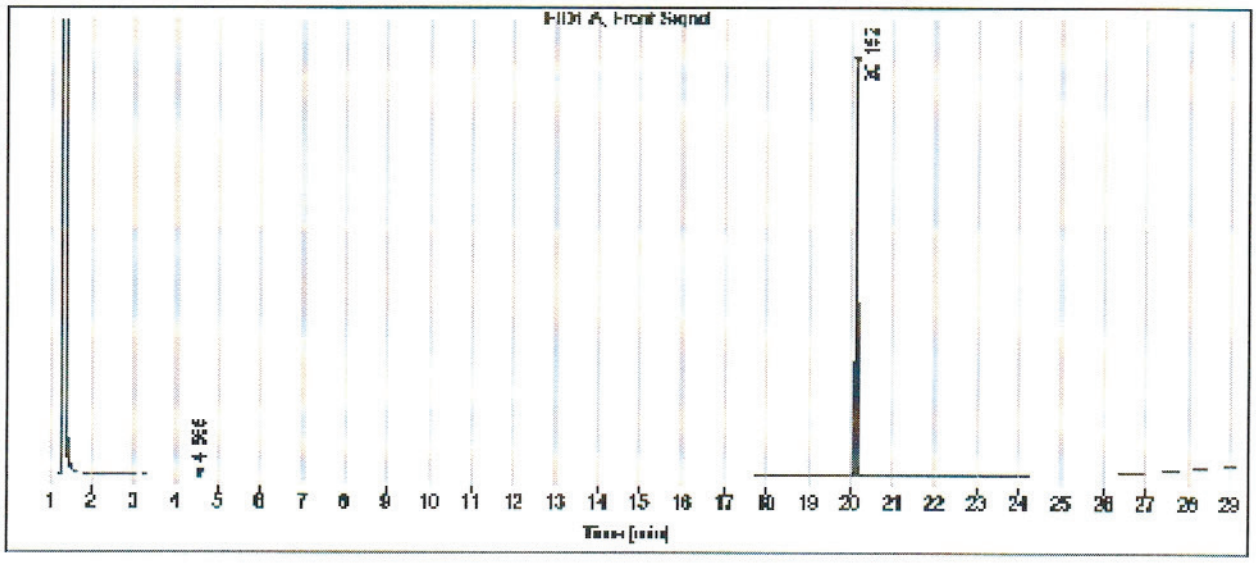
Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

CERTIFICATE OF ANALYSIS

Data file:	C:\CHEM3\		
Sample name:	N-12693		
Instrument:	GC 2	[illegible]	[illegible]
Injection date:	9/23/2019 9:56:34 AM	**Location:**	Vial 141
Acq. method:	SCREEN.M	**Injection volume:**	1.0uL
Column name:	HP-5		



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211012A		
Standard Name	Diesel Fuel #2 50,000 ug/mL in DCM	Type:	Primary
Date Prepared	10/12/2021	BY:	Ann Nebel
Date Expires:	4/30/2023		
Department	dropr	Status:	New
Vendor:	Sigma-Aldrich		
Lot Number:	LRAC6316		
Balance ID:			
Comments:	Diesel Fuel #2 For CCVs.		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Diesel Fuel No. 2	14376	1	mL	4/30/

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**	
Analytes	**CAS**	Conc:	**ug/mL**
Diesel Fuel #2			0

Page: *1 of 1*

Certificate of Analysis

Diesel Fuel No. 2

Certified Reference Material

Description

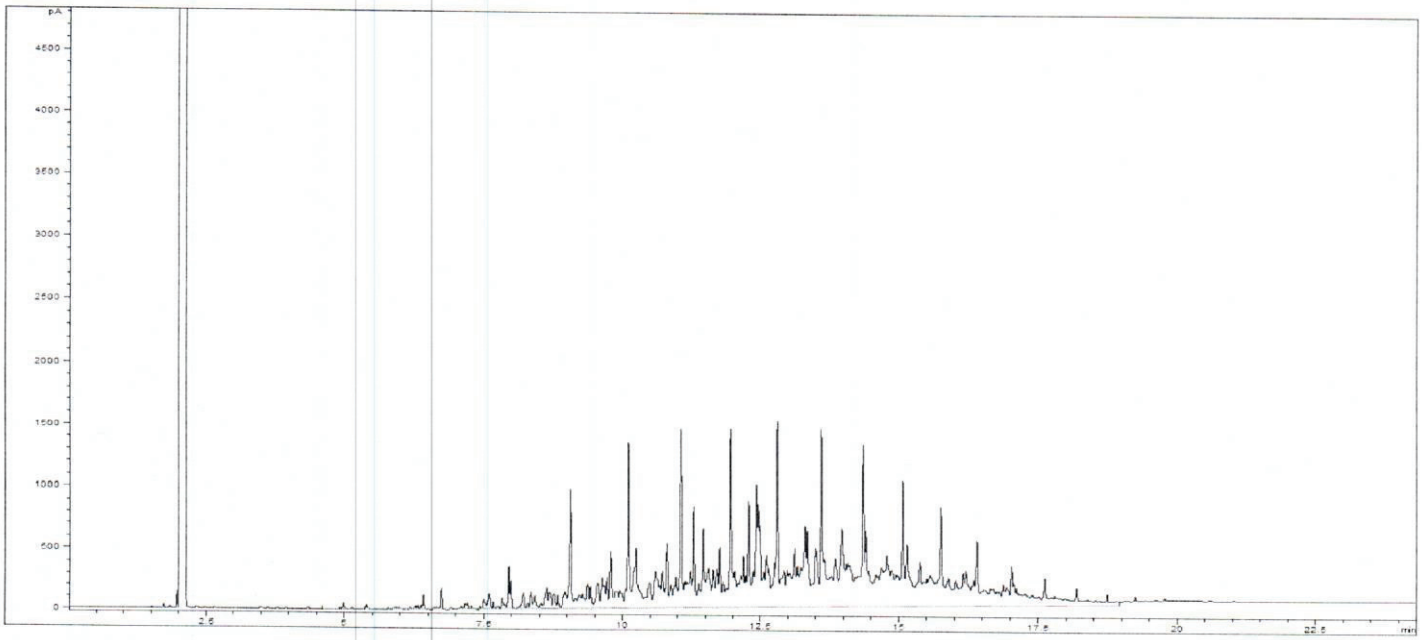
Product ID UST148
Lot **LRAC6316**
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

ID #: 14376
Opened:
Diesel Fuel No. 2
Expires: 4/30/2023
Rec'd: 10/12/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Certified Values

Analyte	*Certified Value* [1,4]	*Units*	*Raw Material Purity,%*	*Raw Material Lot*	*CAS*
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:
Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)
Carrier Gas: H2, Flow: 4.0 mL/min
Inlet Temperature: 250 °C, Injection Volume: 1.0 µL
Injection Mode: Split, Split Ratio: 10: 1
Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)
Detector: FID
Detector Temperature: 300 °C

ANAB ACCREDITED 5017/2014 REFERENCE MATERIAL PRODUCER

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot LRAC6316
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

1 **Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{hom\ ogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH **ISO/IEC 17025:2017 (ANAB Cert AT-1467)** and **ISO 17034:2016 (ANAB Cert AR-1470).**

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Certification Date April 30, 2020
Version 0-4302020

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO180918C		
Standard Name	50,000 ug/mL Oil Std For AK103 RRO-In DC	Type:	Primary
Date Prepared	9/18/2018	BY:	Ann Nebel
Date Expires:	8/31/2025		
Department	dropr	Status:	Open
Vendor:	Restek		
Lot Number:	A0140080		
Balance ID:	Sartorius 4 place balance		

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Residual Range Cailbration Standard	10787	1	mL	8/31/

Final Volume: 1 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31817 **Lot No.:** A0140080

Description : Residual Range Calibration Standard (RCS)

Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2025 **Storage:** 25°C nominal

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil)	50,113.0 µg/mL	+/- 293.4226	µg/mL	Gravimetric
	CAS # 64742-65-0.F (Lot A0126386)		+/- 1,492.4284	µg/mL	Unstressed
	Purity ----%		+/- 1,591.6738	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

ID #: 10787
Opened:
Residual Range Calibration Standard
Expires: 8/31/2025
Rec'd: 9/18/2018
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

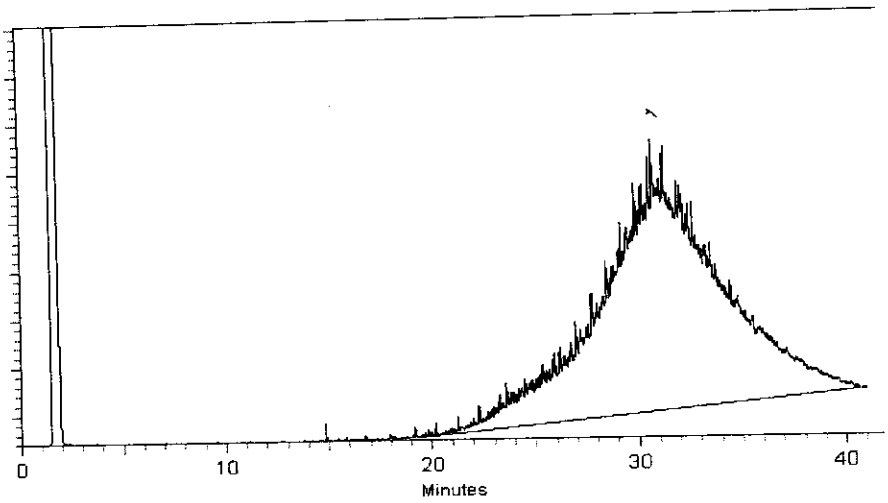
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 28-Jul-2018 **Balance:** B345965662

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 30-Jul-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211006A		
Standard Name	Triacontane SURR 2000 ug/mL	Type:	Secondary
Date Prepared	10/6/2021	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	50	mL	7/22/

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
DRO210406A	Triacontane-d62 Surr For AK103 RRO	ug/mL	0.1001 g

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			2000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210406A		
Standard Name	Triacontane-d62 Surr For AK103 RRO	Type:	Neat
Date Prepared	4/6/2021	BY:	Ann Nebel
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:	Sigma-Aldrich		
Lot Number:	MBBC4347		
Balance ID:			
Comments:	Alaska surr [for AK103 RRO]		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Triacontane-d62-98 atom % D	13736		mL	4/6/2

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A Triacontane-d62		1

Page: *1 of 1*

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Triacontane-d_{62} - 98 atom % D

$CD_3(CD_2)_{28}CD_3$

Product Number:	**451789**
Batch Number:	**MBBC4347**
Brand:	ALDRICH
CAS Number:	93952-07-9
MDL Number:	MFCD00209794
Formula:	C30D62
Formula Weight:	485.20 g/mol
Quality Release Date:	27 APR 2018

ID #: 13736
Opened:
Triacontane-d62-98 atom % D
Expires: 4/6/2026
Rec'd: 4/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C

Greg Abernathy, Supervisor
Quality Control
Miamisburg, Ohio US

Version Number: 1

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211012B		
Standard Name	#2 Diesel in Acetone 150,000 ug/mL	Type:	Secondary
Date Prepared	10/12/2021	BY:	Ann Nebel
Date Expires:	11/5/2023		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	#2 Diesel in Acetone 150,000 ug/mL.		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone EA662	14050	25	mL	1/7/2

Final Volume: 25 mL

Stock Source		**Base Units**	**Amount Added**
DRO181105A	#2 Diesel (NEAT)	ug/mL	3.7507 g

Analytes		**CAS**	Conc:	**ug/mL**
A	#2 Diesel	68476-34-6		150000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO181105A		
Standard Name	#2 Diesel (NEAT)	Type:	Neat
Date Prepared	11/5/2018	BY:	Ann Nebel
Date Expires:	11/5/2023		
Department	dropr	Status:	New
Vendor:	conoco		
Lot Number:			
Balance ID:			

Comments: -18 Cloud peak. (Conoco Gas Sation 1240 S. 27th Billings, MT) 2nd Source

Final Volume: 250 mL

Stock Source		Base Units	Amount Added	
Analytes		**CAS**	Conc:	**ug/mL**
A	#2 Diesel	68476-34-6		1

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210902A		
Standard Name	50,000 ug/mL Oil Std for RRO-In DCM	Type:	Secondary
Date Prepared	9/2/2021	BY:	Jillian L Bostwick
Date Expires:	9/1/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	.625 g of 30W and 40 W each LCS for Oil range		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EB867	14196	25	mL	6/18/

Final Volume: 25 mL

Stock Source		Base Units	Amount Added
DRO210901B	40W Motor Oil-Valvoline	ug/mL	0.6261 g
DRO210901A	30W Motor Oil-Valvoline	ug/mL	0.6254 g

Analytes		CAS	Conc: ug/mL
A	30W Motor Oil		10000
A	30W-Motor oil		0
A	40W Motor Oil		10000
A	40W-Motor oil		0

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210901A		
Standard Name	30W Motor Oil-Valvoline	Type:	Primary
Date Prepared	9/1/2021	BY:	Jillian L Bostwick
Date Expires:	9/1/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:	F1620C1		
Balance ID:			

Comments: Used to make 2nd Source Standard for AK103 method.

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 30 Motor Oil	14232		mL	9/1/2

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A 30W-Motor oil		1

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210901B		
Standard Name	40W Motor Oil-Valvoline	Type:	Primary
Date Prepared	9/1/2021	BY:	Jillian L Bostwick
Date Expires:	9/1/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:	L0717H2		
Balance ID:			

Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method and Oil

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 40 Motor Oil	14231		mL	9/1/2

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A 40W-Motor oil		1

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO220105B		
Standard Name	8015 CCV-15,000ug/mL + 200 OTP	Type:	Secondary
Date Prepared	1/5/2022	BY:	Ann Nebel
Date Expires:	4/30/2023		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:			
Comments:	8015DRO CCV MIX-15,000ug/mL +200 OTP #2 Diesel		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC832	14647	2.6	mL	10/28

Final Volume: 4 mL

Stock Source		Base Units	Amount Added
DRO211101A	OTP-4000 ug/mL DCM	ug/mL	0.2 mL
DRO211214C	Diesel Fuel #2 50,000 ug/mL in DCM	ug/mL	1.2 mL

Analytes		CAS	Conc: ug/mL
A	#2 Diesel		15000
	Diesel Fuel #2		0
A	O-Terphenyl	84-15-1	200

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211214C		
Standard Name	Diesel Fuel #2 50,000 ug/mL in DCM	Type:	Primary
Date Prepared	12/14/2021	BY:	Ann Nebel
Date Expires:	4/30/2023		
Department	dropr	Status:	New
Vendor:	Sigma-Aldrich		
Lot Number:	LRAC6316		
Balance ID:			
Comments:	Diesel Fuel #2 For CCVs.		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Diesel Fuel No. 2	14623	1	mL	4/30/

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
Diesel Fuel #2		0

Certificate of Analysis

Diesel Fuel No. 2

Certified Reference Material

Description

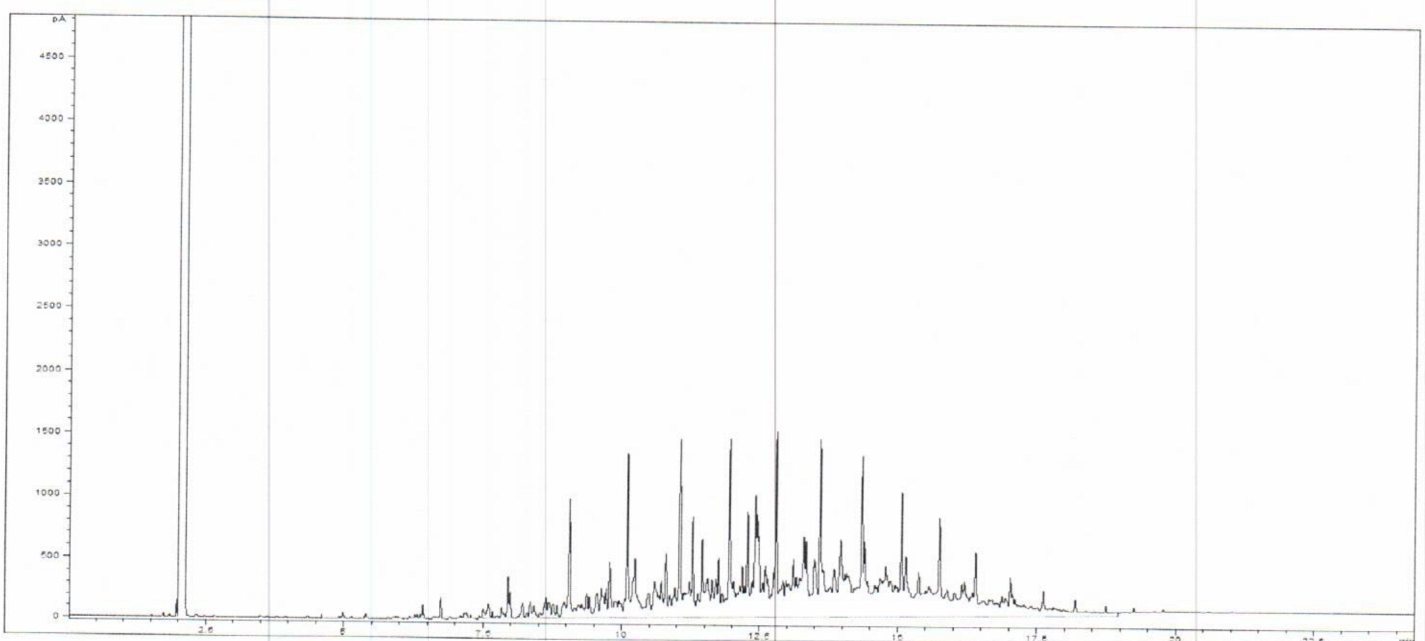
Product ID	UST148
Lot	**LRAC6316**
Expiration Date	April 2023
Manufacturing Date	April 2020
Storage Conditions	Room Temperature
Solvent/Matrix	DICHLOROMETHANE

ID #: **14623**
Opened:____________
Diesel Fuel No. 2
Expires: 4/30/2023
Rec'd: 12/14/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Certified Values

Analyte	*Certified Value* [1,4]	*Units*	*Raw Material Purity,%*	*Raw Material Lot*	*CAS*
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:
Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)
Carrier Gas: H2, Flow: 4.0 mL/min
Inlet Temperature: 250 °C, Injection Volume: 1.0 µL
Injection Mode: Split, Split Ratio: 10: 1
Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)
Detector: FID
Detector Temperature: 300 °C

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

SIGMA-ALDRICH
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot	**LRAC6316**
Expiration Date	April 2023
Manufacturing Date	April 2020
Storage Conditions	Room Temperature
Solvent/Matrix	DICHLOROMETHANE

1 **Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH **ISO/IEC 17025:2017 (ANAB Cert AT-1467)** and **ISO 17034:2016 (ANAB Cert AR-1470).**

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Certification Date April 30, 2020
Version 0-4302020

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

Energy Laboratories Inc

Spike LOG

Standard ID:	DRO211101A		
Standard Name	OTP-4000 ug/mL DCM	Type:	Secondary
Date Prepared	11/1/2021	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	Open
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Used to Prep DRO-8015 ICAL and CCV Solutions		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC328	14408	25	mL	8/19/

Final Volume: 25 mL

Stock Source		Base Units	Amount Added
DRO200430B	O-Terphenyl	ug/mL	0.1012 g

Analytes		CAS	Conc:	ug/mL
A	O-Terphenyl	84-15-1		4000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO200430B		
Standard Name	O-Terphenyl	Type:	Neat
Date Prepared	4/30/2020	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	New
Vendor:	Chemservice		
Lot Number:	9972100		
Balance ID:			
Comments:	ID#: 6271		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	12650	500	mg	9/30/

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**	
Analytes	**CAS**	Conc:	**ug/mL**
A O-Terphenyl	84-15-1		1

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER	N-12693-500MG
LOT NUMBER	9972100
DATE CERTIFIED	09/23/19
EXPIRATION DATE	09/30/24
CAS NUMBER	84-15-1
MOLECULAR FORMULA	C18H14
MOLECULAR WEIGHT	230.32
STORAGE	Store in a cool dry place.
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650
Opened:
o-Terphenyl
Expires: 9/30/2024
Rec'd: 4/30/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

PJLA Reference Material Producer

PJLA Testing

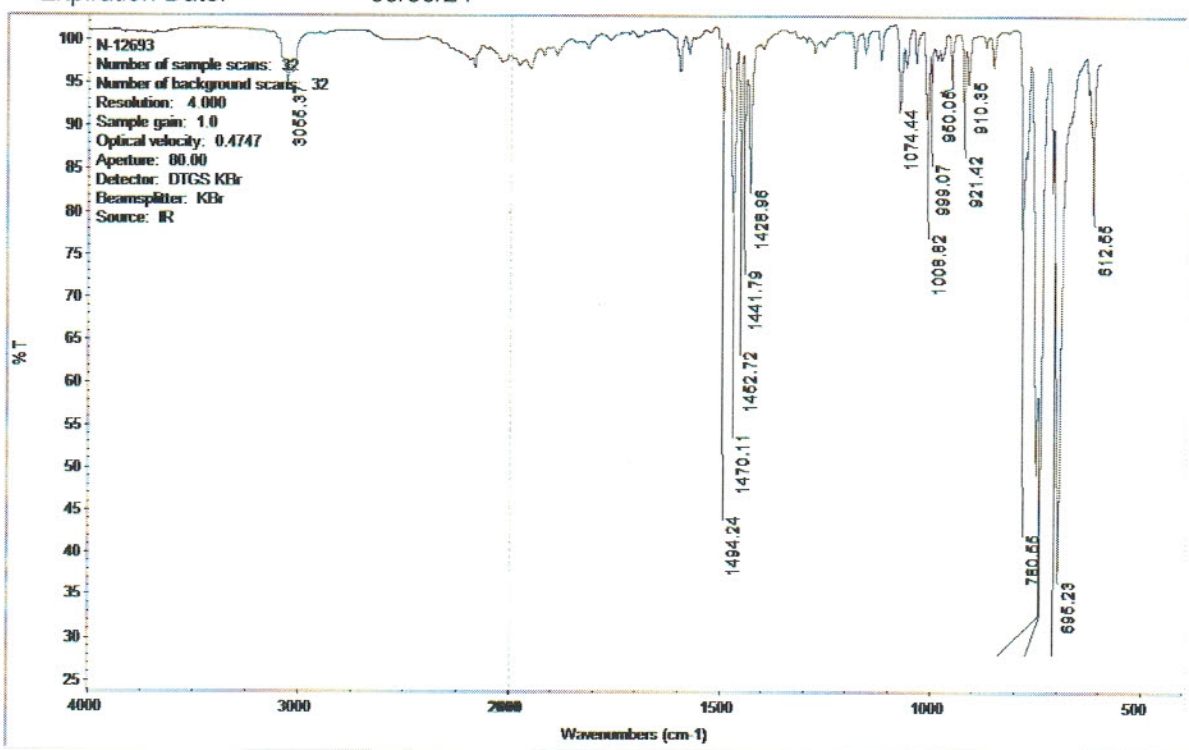
COA Form
Revision 3 (3/2015)

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth:SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

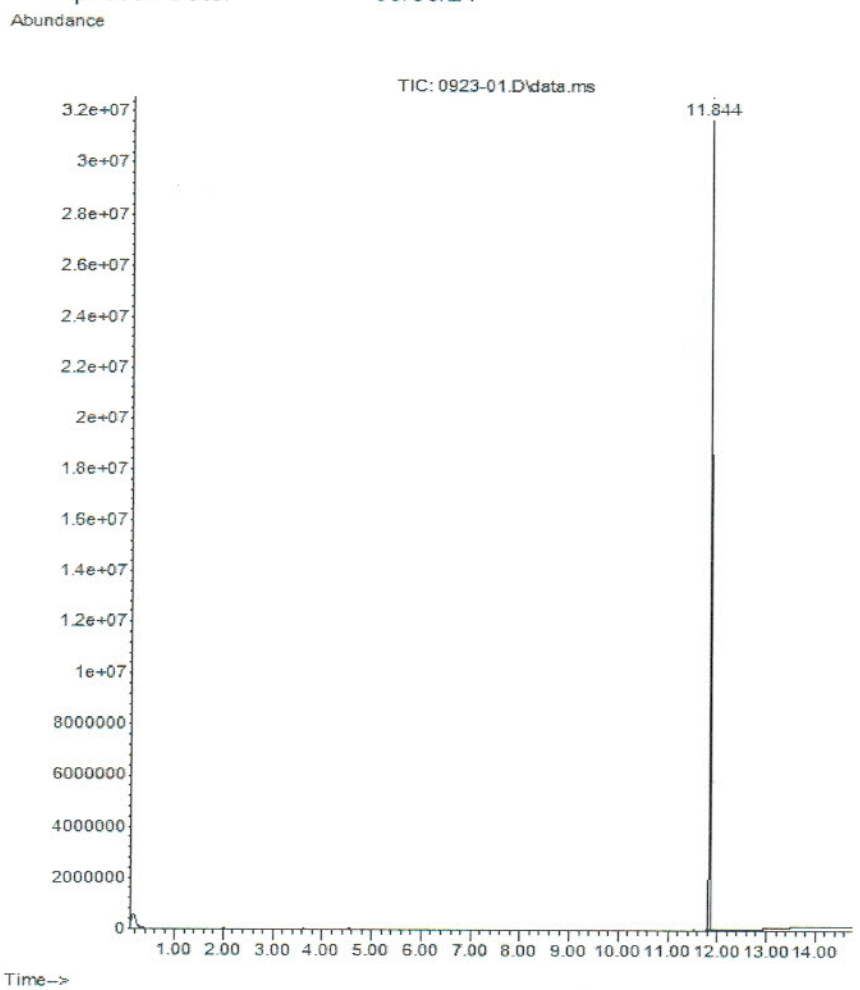
ERIN.M Mon Sep 23 10:55:51 2019

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

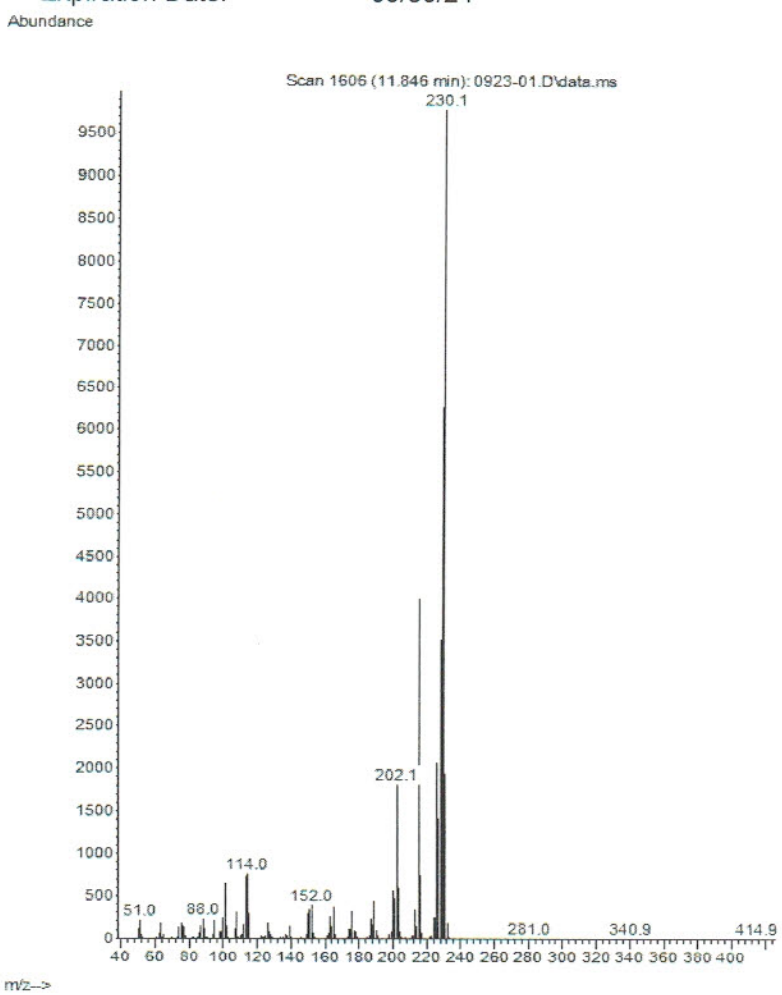


660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

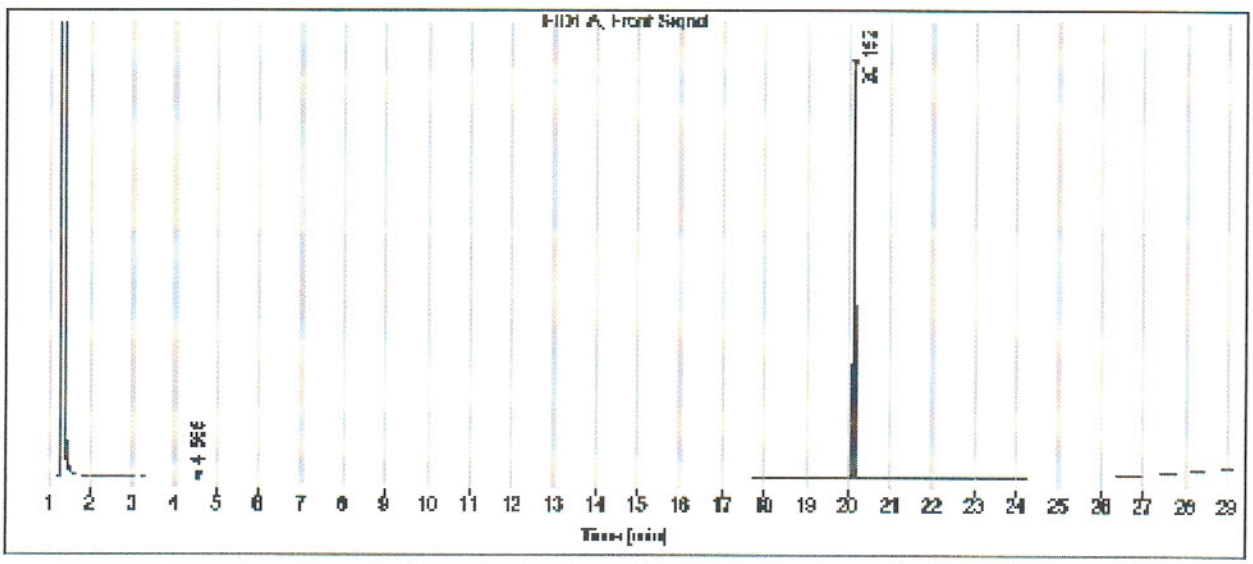
Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

CERTIFICATE OF ANALYSIS

Data file:	C:\CHEM32		
Sample name:	N-12693		
Instrument:	GC 2	**Sample type:**	Sample
Injection date:	9/23/2019 9:56:34 AM	**Location:**	Vial 141
Acq. method:	SCREEN.M	**Injection volume:**	1.0uL
Column name:	HP-5		



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO220106A		
Standard Name	5,000 ug/mL RRO CCV 200 ug/mL Triaconta	Type:	Secondary
Date Prepared	1/6/2022	BY:	Ann Nebel
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	Sartorius 4 place balance		
Comments:	CCV for AK102 and 8015C RRO.		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC832	14647	2.8	mL	10/28

Final Volume: 4 mL

Stock Source		Base Units	Amount Added
DRO210401B	50,000 ug/mL Oil Std For AK103 RRO-I	ug/mL	400 µL
DRO220105A	Triacontane SURR 1000 ug/mL	ug/mL	800 µL

Analytes		CAS	Conc:	ug/mL
A	30/40W Motor Oil			5000
A	Triacontane-d62			200

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210401B		
Standard Name	50,000 ug/mL Oil Std For AK103 RRO-In DC	Type:	Primary
Date Prepared	4/1/2021	BY:	Ann Nebel
Date Expires:	1/31/2028		
Department	dropr	Status:	Open
Vendor:	Restek		
Lot Number:	A0166827		
Balance ID:	Sartorius 4 place balance		

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Residual Range Calibration Standard (	13714	1	mL	1/31/

Final Volume: 1 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31817 **Lot No.:** A0166827

Description : Residual Range Calibration Standard (RCS)

Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2028 **Storage:** 25°C nominal

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil)	50,056.0 µg/mL	+/- 293.0889	µg/mL	Gravimetric
	CAS # 64742-65-0.F (Lot A0126386)		+/- 1,490.7309	µg/mL	Unstressed
	Purity ----%		+/- 1,589.8634	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

ID #: 13714
Opened:
Residual Range Calibration Standard (RCS)
Expires: 1/31/2028
Rec'd: 4/1/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

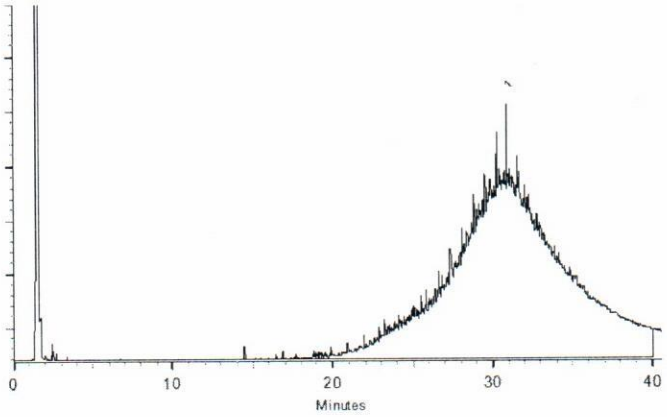
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble - Operations Technician I

Date Mixed: 02-Dec-2020 **Balance:** 1128353505

Justine Albertson - Operations Tech-ARM QC

Date Passed: 07-Dec-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO220105A		
Standard Name	Triacontane SURR 1000 ug/mL	Type:	Secondary
Date Prepared	1/5/2022	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	2X dilution of Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC832	14647	5	mL	10/28

Final Volume: 10 mL

Stock Source		**Base Units**	**Amount Added**
DRO211006A	Triacontane SURR 2000 ug/mL	ug/mL	5 mL

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			1000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211006A		
Standard Name	Triacontane SURR 2000 ug/mL	Type:	Secondary
Date Prepared	10/6/2021	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	50	mL	7/22/

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
DRO210406A	Triacontane-d62 Surr For AK103 RRO	ug/mL	0.1001 g

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			2000

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Triacontane-d62 - 98 atom % D

$CD_3(CD_2)_{28}CD_3$

Product Number:	**451789**
Batch Number:	**MBBC4347**
Brand:	ALDRICH
CAS Number:	93952-07-9
MDL Number:	MFCD00209794
Formula:	C30D62
Formula Weight:	485.20 g/mol
Quality Release Date:	27 APR 2018

ID #: 13736
Opened:
Triacontane-d62-98 atom % D
Expires: 4/6/2026
Rec'd: 4/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C

Greg Abernathy, Supervisor
Quality Control
Miamisburg, Ohio US

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO220106B		
Standard Name	Triacontane SURR 1000 ug/mL	Type:	Secondary
Date Prepared	1/6/2022	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	2X dilution of Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC832	14647	5	mL	10/28

Final Volume: 10 mL

Stock Source		**Base Units**	**Amount Added**
DRO211006A	Triacontane SURR 2000 ug/mL	ug/mL	5 mL

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			1000

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211006A		
Standard Name	Triacontane SURR 2000 ug/mL	Type:	Secondary
Date Prepared	10/6/2021	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	50	mL	7/22/

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
DRO210406A	Triacontane-d62 Surr For AK103 RRO	ug/mL	0.1001 g

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			2000

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Triacontane-d62 - 98 atom % D

$CD_3(CD_2)_{28}CD_3$

Product Number:	**451789**
Batch Number:	**MBBC4347**
Brand:	ALDRICH
CAS Number:	93952-07-9
MDL Number:	MFCD00209794
Formula:	C30D62
Formula Weight:	485.20 g/mol
Quality Release Date:	27 APR 2018

ID #: 13736
Opened:
Triacontane-d62-98 atom % D
Expires: 4/6/2026
Rec'd: 4/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C

Greg Abernathy, Supervisor
Quality Control
Miamisburg, Ohio US

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210902A		
Standard Name	50,000 ug/mL Oil Std for RRO-In DCM	Type:	Secondary
Date Prepared	9/2/2021	BY:	Jillian L Bostwick
Date Expires:	9/1/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	.625 g of 30W and 40 W each LCS for Oil range		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EB867	14196	25	mL	6/18/

Final Volume: 25 mL

Stock Source		Base Units	Amount Added
DRO210901B	40W Motor Oil-Valvoline	ug/mL	0.6261 g
DRO210901A	30W Motor Oil-Valvoline	ug/mL	0.6254 g

Analytes		CAS	Conc: ug/mL
A	30W Motor Oil		10000
A	30W-Motor oil		0
A	40W Motor Oil		10000
A	40W-Motor oil		0

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210901B		
Standard Name	40W Motor Oil-Valvoline	Type:	Primary
Date Prepared	9/1/2021	BY:	Jillian L Bostwick
Date Expires:	9/1/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:			

Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method and Oil

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 40 Motor Oil	14231		mL	9/1/2

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A 40W-Motor oil		1

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210901A		
Standard Name	30W Motor Oil-Valvoline	Type:	Primary
Date Prepared	9/1/2021	BY:	Jillian L Bostwick
Date Expires:	9/1/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:			

Comments: Used to make 2nd Source Standard for AK103 method.

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 30 Motor Oil	14232		mL	9/1/2

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A 30W-Motor oil		1

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211213A		
Standard Name	OTP only SURR 2000 ug/mL	Type:	Secondary
Date Prepared	12/13/2021	BY:	Jillian L Bostwick
Date Expires:	9/30/2024		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	OTP SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	100	mL	7/22/

Final Volume: 100 mL

Stock Source		Base Units	Amount Added
DRO200430B	O-Terphenyl	ug/mL	0.2015 g

Analytes		CAS	Conc:	ug/mL
A	1-Chlorooctadecane	3386-33-2		2000

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO200430B		
Standard Name	O-Terphenyl	Type:	Neat
Date Prepared	4/30/2020	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	New
Vendor:	Chemservice		
Lot Number:	9972100		
Balance ID:			
Comments:	ID#: 6271		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	12650	500	mg	9/30/

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A O-Terphenyl	84-15-1	1

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER	N-12693-500MG
LOT NUMBER	9972100
DATE CERTIFIED	09/23/19
EXPIRATION DATE	09/30/24
CAS NUMBER	84-15-1
MOLECULAR FORMULA	C18H14
MOLECULAR WEIGHT	230.32
STORAGE	Store in a cool dry place.
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

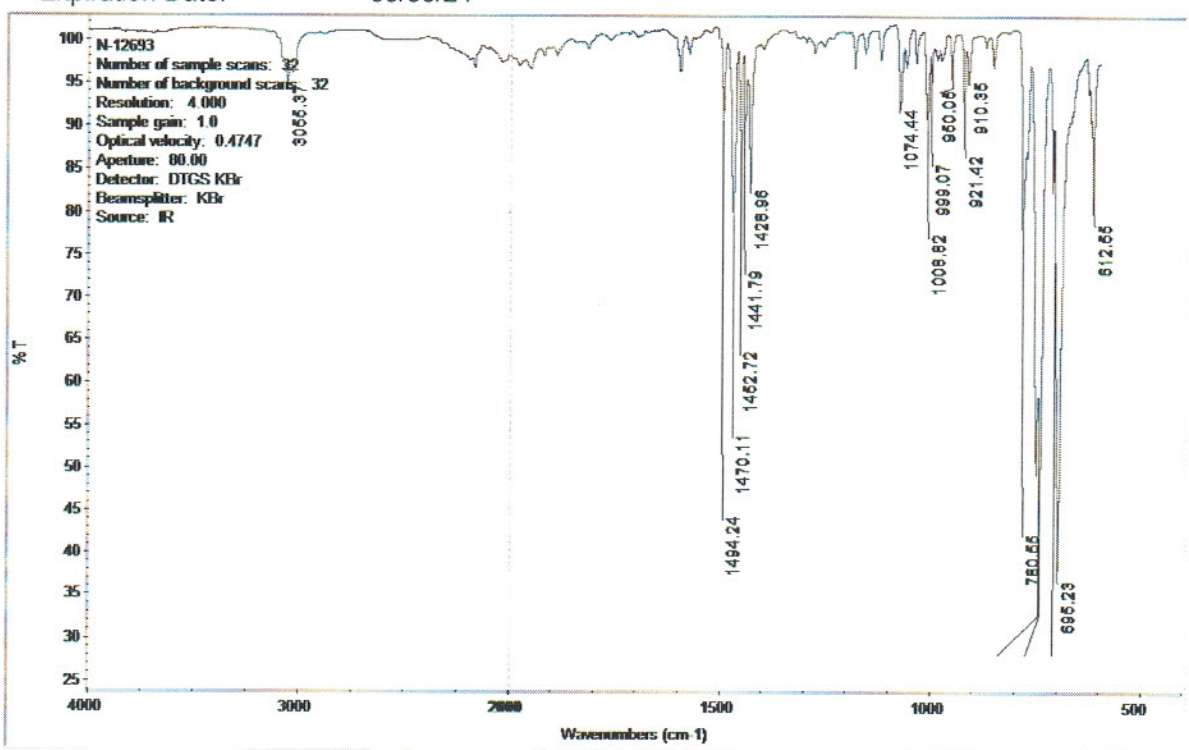
ID #: 12650
Opened:
o-Terphenyl
Expires: 9/30/2024
Rec'd: 4/30/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth:SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

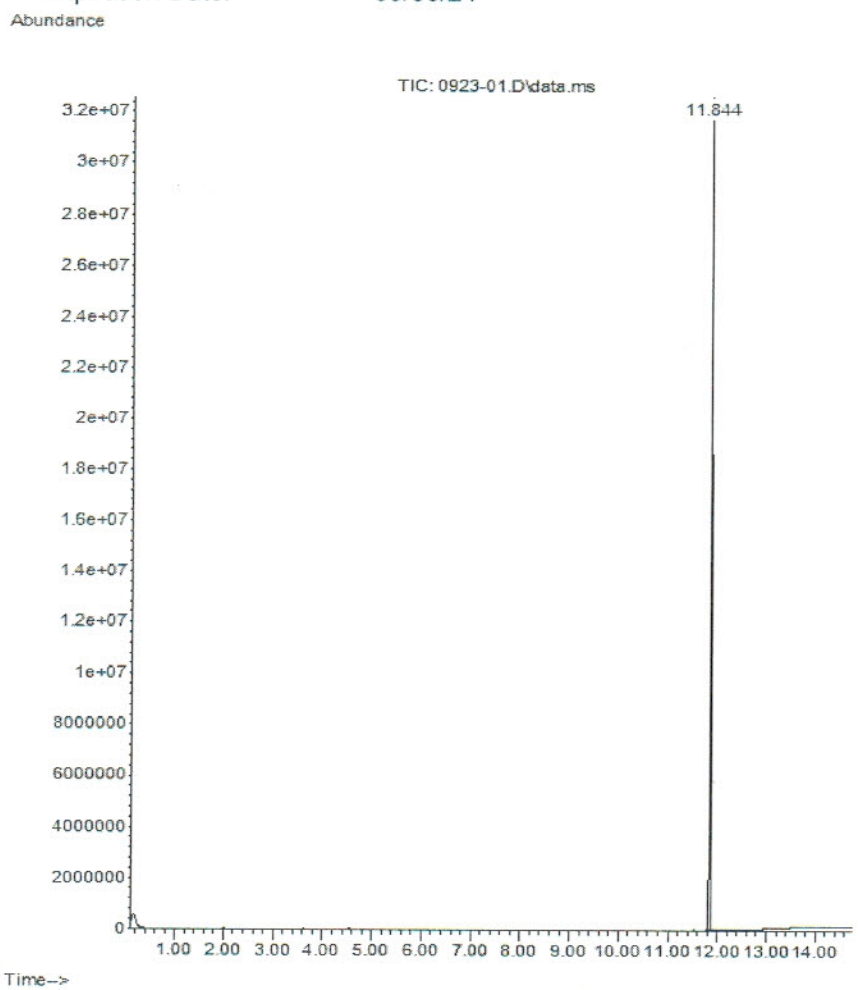
ERIN.M Mon Sep 23 10:55:51 2019

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

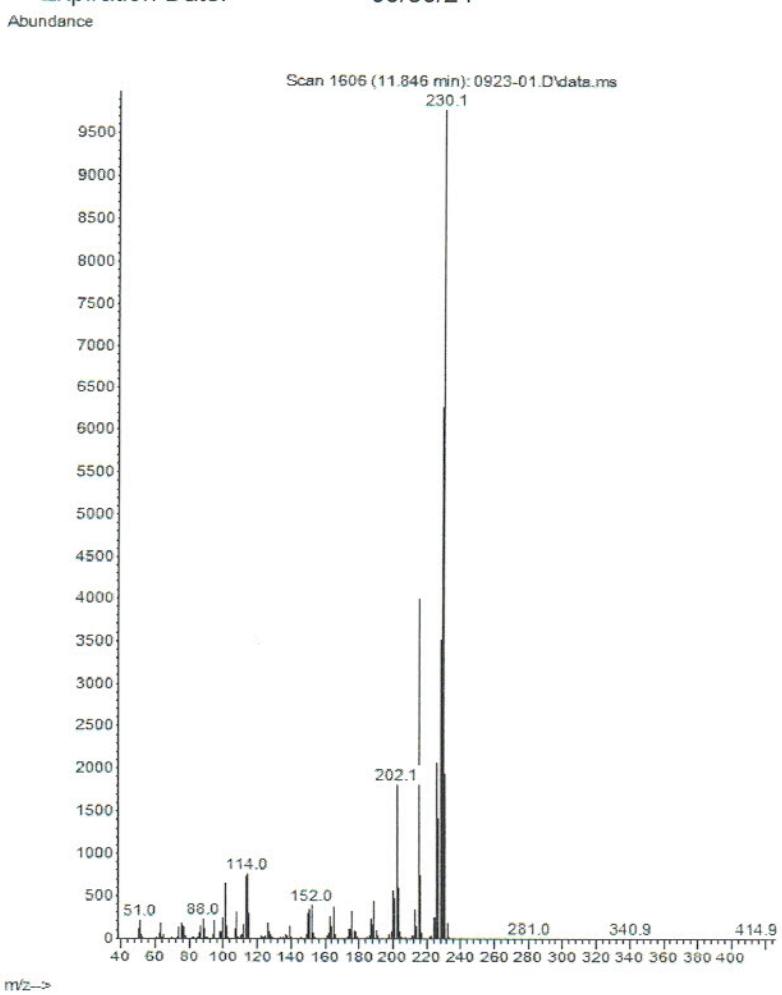


660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

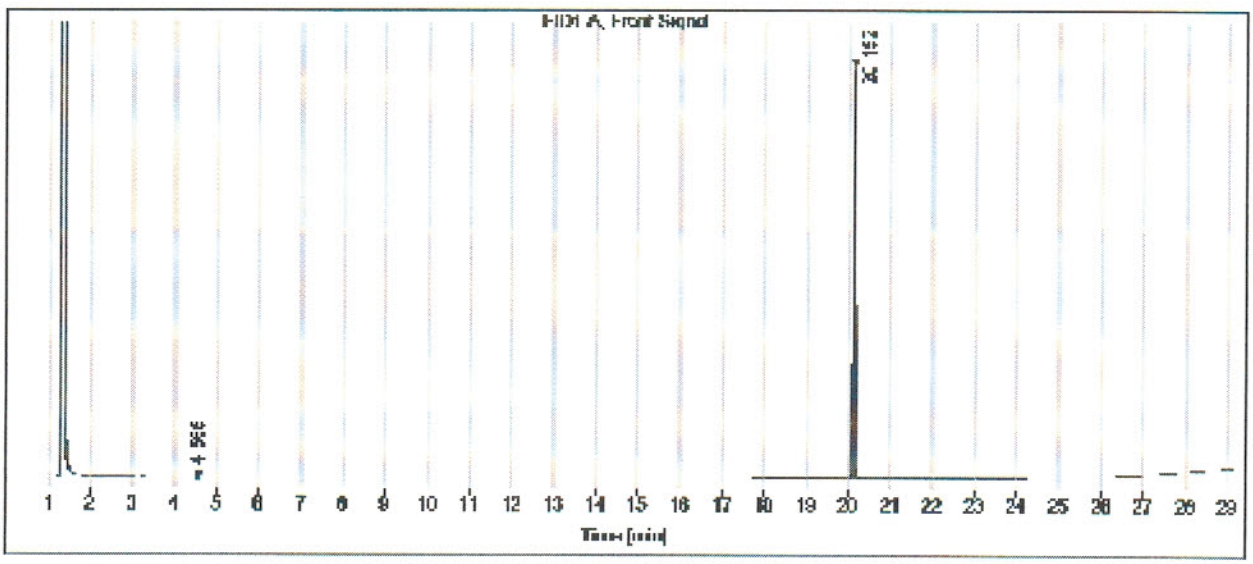
Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

CERTIFICATE OF ANALYSIS

Data file:	C:\CHEM3\		
Sample name:	N-12693		
Instrument:	GC 2	**Sample type:**	Sample
Injection date:	9/23/2019 9:56:34 AM	**Location:**	Vial 141
Acq. method:	SCREEN.M	**Injection volume:**	1.0uL
Column name:	HP-5		



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		